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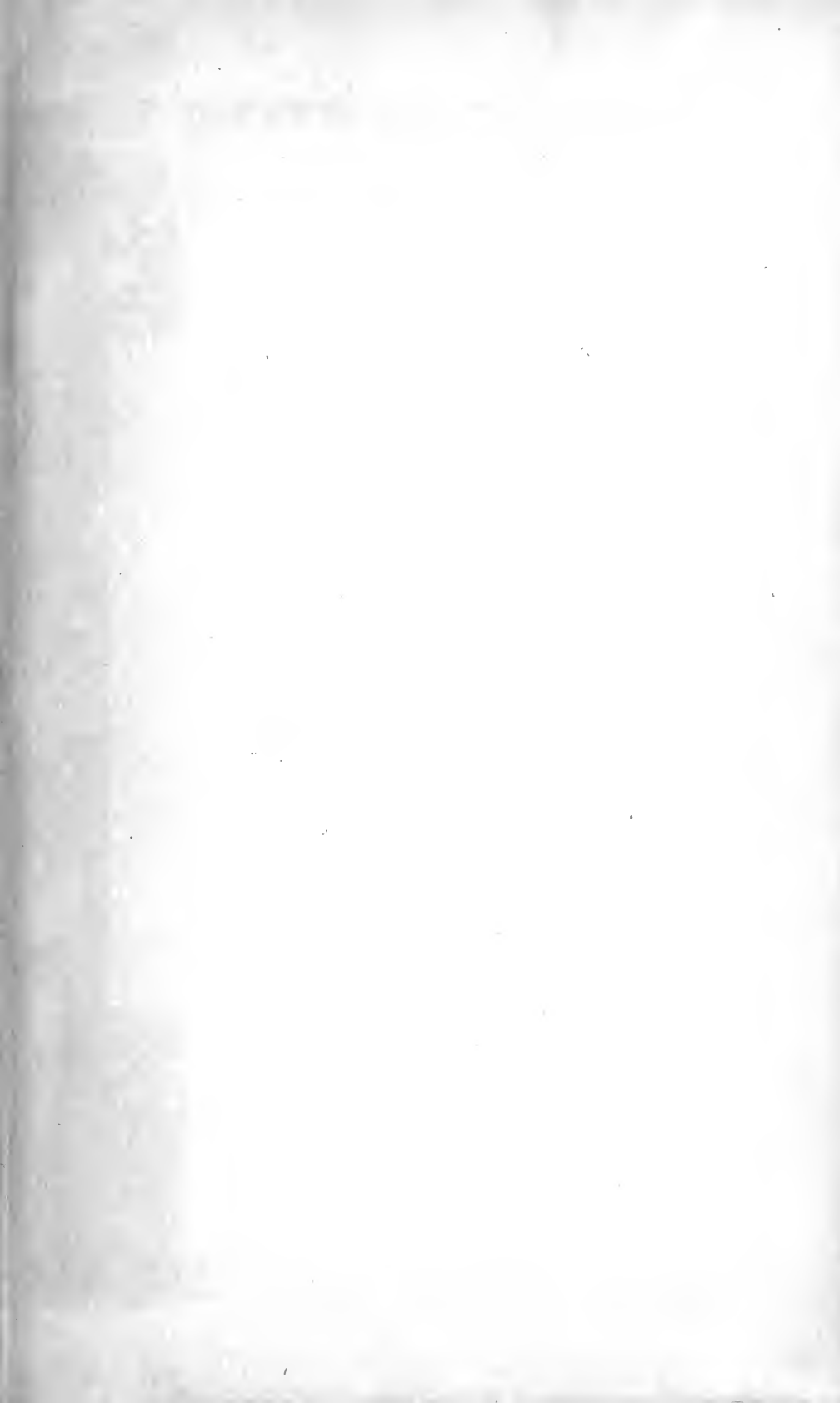
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INVESTIGATION OF THE NATIONAL DEFENSE PROGRAM

U. S. Congress
" HEARINGS

BEFORE A

SPECIAL COMMITTEE INVESTIGATING THE
NATIONAL DEFENSE PROGRAM

UNITED STATES SENATE

SEVENTY-SEVENTH CONGRESS

FIRST SESSION

PURSUANT TO

S. Res. 71

A RESOLUTION AUTHORIZING AND DIRECTING
AN INVESTIGATION OF THE NATIONAL
DEFENSE PROGRAM

PART 1

APRIL 15, 16, 17, 21, 22, 23, 24, AND 25, 1941

PROGRESS OF NATIONAL DEFENSE PROGRAM

Printed for the use of the Special Committee Investigating
the National Defense Program



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1941

294949



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1 On file with the committee.

INVESTIGATION OF THE NATIONAL DEFENSE PROGRAM

TUESDAY, APRIL 15, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE INVESTIGATING
THE NATIONAL DEFENSE PROGRAM,
Washington, D. C.

The committee met, pursuant to call, at 10:30 a. m., in room 318, Senate Office Building, Senator Harry S. Truman, presiding.

Present: Senators Harry S. Truman (chairman), Mon C. Wallgren, Joseph H. Ball, Ralph D. Brewster, and Carl Hatch.

Also present: Hugh A. Fulton, chief counsel, and Charles P. Clark, associate chief counsel.

The CHAIRMAN. The committee will come to order. As you gentlemen are aware, this committee was appointed pursuant to Senate Resolution 71, adopted by the Senate on March 1, 1941, which resolution will be incorporated in the record.

[S. Res. 71, 77th Cong., 1st sess.]

RESOLUTION

Resolved, That a special committee of seven Senators, to be appointed by the President of the Senate, is authorized and directed to make a full and complete study and investigation of the operation of the program for the procurement and construction of supplies, materials, munitions, vehicles, aircraft, vessels, plants, camps, and other articles and facilities in connection with the national defense, including (1) the types and terms of contracts awarded on behalf of the United States; (2) the methods by which such contracts are awarded and contractors selected; (3) the utilization of the facilities of small business concerns, through subcontracts or otherwise; (4) the geographic distribution of contracts and location of plants and facilities; (5) the effect of such program with respect to labor and the migration of labor; (6) the performance of contracts and the accountings required of contractors; (7) benefits accruing to contractors with respect to amortization for the purposes of taxation or otherwise; (8) practices of management or labor, and prices, fees, and charges, which interfere with such program or unduly increase its cost; and (9) such other matters as the Committee deems appropriate. The committee shall report to the Senate, as soon as practicable, the results of its study and investigation, together with its recommendations.

For the purposes of this resolution the committee, or any duly authorized subcommittee thereof, is authorized to hold such hearings, to sit and act at such times and places during the sessions, recesses, and adjourned periods of the Seventy-seventh and succeeding Congresses, to employ such clerical and other assistance, to require by subpoena or otherwise the attendance of such witnesses and the production of such correspondence, books, papers, and documents, to make such investigations, to administer such oaths, to take such testimony, and to incur such expenditures as it deems advisable. The costs of stenographic services to report such hearings shall not be in excess of 25 cents per hundred words. The expenses of the committee, which shall not exceed \$15,000, shall be paid from the contingent fund of the Senate upon vouchers approved by the chairman of the committee.

The first witness this morning will be the Secretary of War.

Senator Hatch telephoned me that he would not be able to be present, since he had previously arranged to conduct another Senate committee hearing, but he could be counted present and would be pleased to come if his presence became necessary.

Mr. Secretary, if you have a statement that you desire to make, you may do so.

TESTIMONY OF HON. HENRY L. STIMSON, SECRETARY OF WAR

Secretary STIMSON. Thank you, sir.

Mr. Chairman, the success or failure of the performance of a task cannot be measured without careful consideration of the conditions under which it has to be performed. I have assumed that your committee realizes this and is willing that a general statement of our tasks should be presented to you before you enter into the consideration of the details of its performance.

I have therefore prepared such a statement giving you a general picture of what the War Department has been called upon to do, the difficulties and obstacles which faced it, and the ways in which those difficulties have been overcome. Other witnesses will be ready to testify in detail to all of these matters. My purpose is to present the general picture.

DEFENSE PROBLEM CONFRONTING WAR DEPARTMENT

Secretary STIMSON. The task of preparing our land forces for defense in the present emergency began in June 1940, when the Battle of Flanders and the fall of France first aroused our people to their danger. Congress had made some previous appropriations for airplanes and other equipment, but the first of the immense emergency appropriations for raising and arming adequate defense forces was not made available until June 1940. Between that date and October 8, 1940, Congress appropriated nearly \$7,000,000,000 further for the Army, over four billion of which was not appropriated until September 9, 1940.

The time and size of the appropriations are strong evidence of the unexpectedness and seriousness of the danger which was suddenly revealed to the Nation.

The danger was not only unexpected but it was novel in its character. During the Great War the armies of Germany and the Allies were deadlocked on the western front for over 4 years. In that war those armies found it practically impossible, without overwhelming losses, to break through the barbed wire and machine gun emplacements which both sides had erected. This situation lasted until finally Germany's strategic reserves were exhausted by attrition in the autumn of 1918. This has led to a belief in the invincible character of modern defensive warfare. The subsequent building of the Maginot Line illustrated this belief.

When therefore in May 1940 a German army suddenly burst upon the world, able to penetrate field fortifications, and which had developed for that purpose a technique in the use of airplanes and tanks hitherto unexpected by any of its opponents, the United States found itself suddenly faced with a problem of defense and training which

was fundamentally different from what it had faced in the first World War.

In 1917 we armed in comparative leisure behind the protection of the stabilized front in France and the complete control over the sea possessed by the Allied fleets.

France and Britain being intact, we bought from them most of the heavy weapons with which we fought. This was true of substantially all of our field guns, tanks, and airplanes. True, we ourselves built these weapons, but generally speaking they were not ready for our use until after the war was over.

We also were able to limit the training of troops which was done in America to the training of divisions only and even to send those divisions across the Atlantic in a very imperfect state of training to complete that training after they got to France. The warfare being in trenches, our troops could be put into the trenches side by side with the veteran troops of our Allies and receive the remainder of their training in the face of the enemy.

All of the organization and training of the corps and armies into which our forces were subsequently subdivided was done on the actual battle front in the presence of the enemy.

Now contrast with this the situation and the problems which have confronted us today.

First, today we are obliged to create here in America large forces which are fully trained to operation in a war of movement. The teams necessary for such warfare must be complete and the men must be trained to the minute in all of the problems of team movements. This means the complete creation in America not only of divisions but of fully trained corps and armies with all of their specialized troops and weapons.

Second, these forces must be armed and trained for a new kind of mechanized warfare involving large numbers of new and specialized weapons which are extremely complicated in character and slow to build, such as the modern airplanes and tanks and the new forms of antitank and antiaircraft artillery.

Third, every one of these weapons must be built in this country. No other nation has them for sale to us, but on the contrary many nations are trying to buy them from us.

Thus, in summary, we have been faced with the task of training to full completeness forces armed with new and complex weapons, trained in new and complicated technique, and to do it all within the United States. Furthermore, our forces must be prepared for the possibilities of war in many and varied terrains, it being quite uncertain in what part of North or South or Central America, or even possibly other regions it ultimately may be necessary to use them in the defense of this country and its possessions.

Finally, in view of the suddenness of the emergency and the critical condition of Great Britain revealed at the end of June 1940, we have had to do this with the utmost speed.

Now, just a few words on some of the domestic obstacles which inevitably and invariably confront the creation of a large American Army.

Uninformed critics often overlook the conditions which control the creation of a large Army in a democracy like ours. In time of peace we have never kept an Army in readiness for a great war. In this

respect we have treated the Army quite differently from our Navy, which now is habitually kept up in comparative readiness for the emergent defense of the Nation.

But the Army in time of peace is allowed to shrink to a minimum number of men and no attempt is made to keep in stock an adequate supply of the constantly changing and developing new weapons necessary to equip an adequate force. The most that can be done by our officers is to try to keep abreast of the methods of war and to create plans for the future expansion of the Army and to develop and procure specimen types of weapons with which it can be ultimately armed.

This, so far as it was possible, had been done before June 1940. The General Staff had worked out on paper the plans for the organization of a mobile force to be created within the continental United States ready for a war of movement. This force was to consist of four separate armies and nine corps comprising both Regulars and National Guard, and aggregating over a million men. But there actually were on the muster rolls on July 1, 1940, only about 250,000 Regulars and about 225,000 National Guardsmen. In order to reach the size of the forces contemplated for June 30 of this year, 1941, it will be necessary to multiply these small existing forces nearly threefold.

The supply officers of the Army on their side had kept in touch with modern weapons and developed new types of their own, of which in some cases they had been allowed to build specimens. The general plan of structure was therefore in existence though, of course, the revelations from the Battle of Flanders made certain modifications both in tactics and armament vitally necessary.

Not a further step could be taken without both substantive legislation and appropriations. Estimates were prepared in June, placed before the Congress, explained to congressional committees, debated on the floor, and finally enacted into law. As I have already pointed out, this final step only became accomplished in September, barely 6 months ago from the time I am now speaking.

I might say I was a little ungenerous to myself there. The last appropriation didn't take place, as I remember it, until October and that appropriation related to the vital question of cantonments.

The CHAIRMAN. That is true.

Secretary STIMSON. No contracts for munitions can be made, of course, until thus specifically authorized by the Congress.

The only method by which we could make sure of sufficient manpower to create the large forces which would be needed was by a compulsory-service statute. And never in our previous history had such a law been passed except in time of recognized war. In consequence, a prolonged popular discussion was necessary before the legislation could be enacted to create this vital pool of manpower for our future forces. The bill was introduced on June 20, 1940. It was at first hoped in the War Department that it might be passed speedily, early in August, but it was not actually enacted into law until September 16, 1940.

Again, one of our primary lines of defense is the National Guard which is composed of civilian soldiery under the primary jurisdiction of the 48 States. In the light of the requirements of mechanized warfare as revealed in the Battle of Flanders, it became obvious that the National Guard must receive at once a large amount of training beyond

what it had ever received before. No adequate power existed in the Federal Government to order the guard out in sufficient time to give this training. A joint resolution giving such authority was introduced in Congress on July 30, 1940. Action was not obtained until August 27, 1940.

Now, until these statutes, the selective-service law and the joint resolution authorizing the ordering out of the Guard, were enacted by the Congress, and until the appropriation bills mentioned above became law, the War Department could not purchase a foot of ground or let a single contract for housing or arming the men who were to be called out under the authority of such legislation.

I might say right there that that is the general statement that is true. It is true that the President had, however, an emergency authorization bill out of which emergency appropriations to a small extent could be made, and a few allotments—or one allotment, I think, was made from that to the Army to help it in some of its preliminary work. But in view of the fact that the selective-service bill was pending and not yet certain of passage, we in the War Department felt, and I think felt rightly, that we would be open to criticism if we took action to spend without the authority of Congress even to the slight extent that that allotment provided, until the policy of the Congress had been determined, and that allotment of money was used entirely for preparation for Camp Dix for forces which we already had in the shape of the National Guard.

Senator BREWSTER. I assume the Secretary prefers not to be interrupted until he is through.

Secretary STIMSON. I would prefer it.

The CHAIRMAN. Everyone will be given a chance to ask questions.

Secretary STIMSON. I will answer them afterward as far as I am competent to answer them.

By the time the authority was finally given, the summer was over and our planned construction was at the mercy of the uncertain weather of the approaching winter. That winter proved to be exceptionally unfavorable.

Now, I am taking up the construction work by the Quartermaster Department.

The foregoing outline shows the unavoidable legislative difficulties which faced the Quartermaster Corps. That corps in the beginning had charge of constructing all the proposed troop housing as well as all new munition plants which might become necessary. Tentative plans had been made for this construction and tentative sites for much of its location had been chosen. But these plans, as well as the congressional estimates based upon them, had to be made in unavoidable ignorance of many factors which afterward were certain to arise. The only guides which the men who made these estimates had before them were the per capita costs of the World War cantonments and of certain small camp units handled in 1939-40. These were known to be insufficient and this fact was carefully pointed out to the Appropriations Committees of the two Houses of Congress by the Chief of Staff when the estimates were made and presented, and those committees were informed that further appropriations, in all probability, would be necessary.

In the light of retrospect we can now visualize many causes which would necessarily make inadequate for the present emergency estimates based upon our former experience in the Great War or elsewhere. For example, in 1917, training areas for team practice for a war of movement were not necessary; today we are obliged to provide for that purpose large maneuver grounds in the neighborhood of cantonments. In 1917 there was practically no training in artillery firing at any of the divisional cantonments, with a few exceptions. Today it is necessary to provide long firing ranges for the various types of field guns and other long-range weapons. Today the roads must be made much stronger in order to support the heavy tanks and truck equipment which is now used. These are merely a few examples of the difference in conditions which necessitate today large outlays in amounts difficult to forecast in detail at the time that the estimates are made.

But perhaps the chief difference is this (this is the one which I wish to emphasize): In 1917 the cantonments were intended to house troops for a shorter period than those now being constructed. We then knew that our troops were going to France and that much of their training would be overseas. There was then strong evidence that the contending forces the war were nearing exhaustion and that, whatever way the decision went, the end was probably not far off.

Today not only are we facing a most dangerous emergency, but there is strong evidence that this emergency may be very prolonged and that we may have to continue our effort and our state of readiness for a very long time. To meet all of these contingencies we are now planning a program of training which will cover many successive military units and many successive installments of men, and which in the aggregate may last for 5 years, which were authorized by the compulsory service law. Therefore, we are giving the men today more adequate and comfortable housing and better facilities for hospitalization, recreation, and education than existed in 1917. The quarters and barracks, the hospitals, the recreation rooms and guest houses are upon a more comfortable and higher scale. Even the utilities, in view of the expectation of a longer occupancy, have been built upon a broader basis.

In addition to this there have been substantial increases in labor and material costs. Details as to all of this will be given by the witnesses who follow.

This whole subject of the increase in the estimates has been recently treated by the report of the Committee on Appropriations of the House of Representatives and the conclusions of that committee are worthy of the attention of this committee as indicating a wise and temperate summary of this situation, and I respectfully refer you to them.

What I wish now to emphasize and make clear is that the initial delays have already been substantially conquered and overcome; that these new and improved plans are resulting in the successful accomplishment of housing for our troops which will give them better care, better training, and better means of recreation and improvement than any American troops have ever received in the history of our country. Furthermore, this will have been done in shorter time than was the case in the Great War 23 years ago.

When the Armistice was signed in 1918, more than 18 months after the United States had entered the war, construction work in the United States had not yet been finished. One hundred and seventy-two unfinished projects of various sorts were discontinued with the Armistice. Today, only a little more than 6 months after our appropriations were passed in September and October, 147 new housing projects are either entirely completed or are very closely nearing completion with all the utilities and conveniences, recreation buildings, theaters, service clubs, chapels, athletic areas, hospitals, bakeries, laundries, cold-storage plants, etc., necessary for the comfort of their occupants. Forty-two of these projects are veritable cities, with populations running from a minimum of 10,000 to a maximum of over 60,000 inhabitants. Over 700,000 men are already in occupancy of their completed new quarters. The status of our construction is in such an advanced condition that we can confidently assure the country that all of the remaining men of our proposed military program will find their quarters awaiting them ready and completed for their occupancy. I think I am speaking in measured language when I say that in no country in the world, including our own, has its military forces ever before been provided for in so brief a time and upon so adequate a scale for ministering to their necessities and comforts.

I have some charts which I was going to show you. I will do so at this point because they bear on this. This shows the status of projects from January 1 to the week of April 4. This is the exhibit.

(The chart referred to was marked "Exhibit No. 1" and appears on p. 8.)

Secretary STIMSON. You will see the work is subdivided into five portions at the respective dates mentioned, beginning with January 1, ending on April 4. It shows in black the projects which have not started on each date; then in diagonal shading, the projects which were behind schedule on that date; then in cross-shading, cross-checking, the projects which were on schedule; and then, fourthly, in diagonal shading the other way, the projects which are ahead of schedule; and finally, at the top in cross-checking, the projects which are entirely completed. You will see that in January the largest percentage were behind schedule, and you will see how as the time has progressed since then the percentage which is behind schedule has diminished until there is today an extremely small percentage, while the part on schedule has gradually increased until at least two and a half times as large a number are on schedule as were in January, and also those which are ahead of schedule increased and those completed increased.

I can say that I think that the organization of the plan which produced that result is very largely due to the skill and organization and the indefatigable work of General Somervell, who took charge on the 15th of December to complete that work.

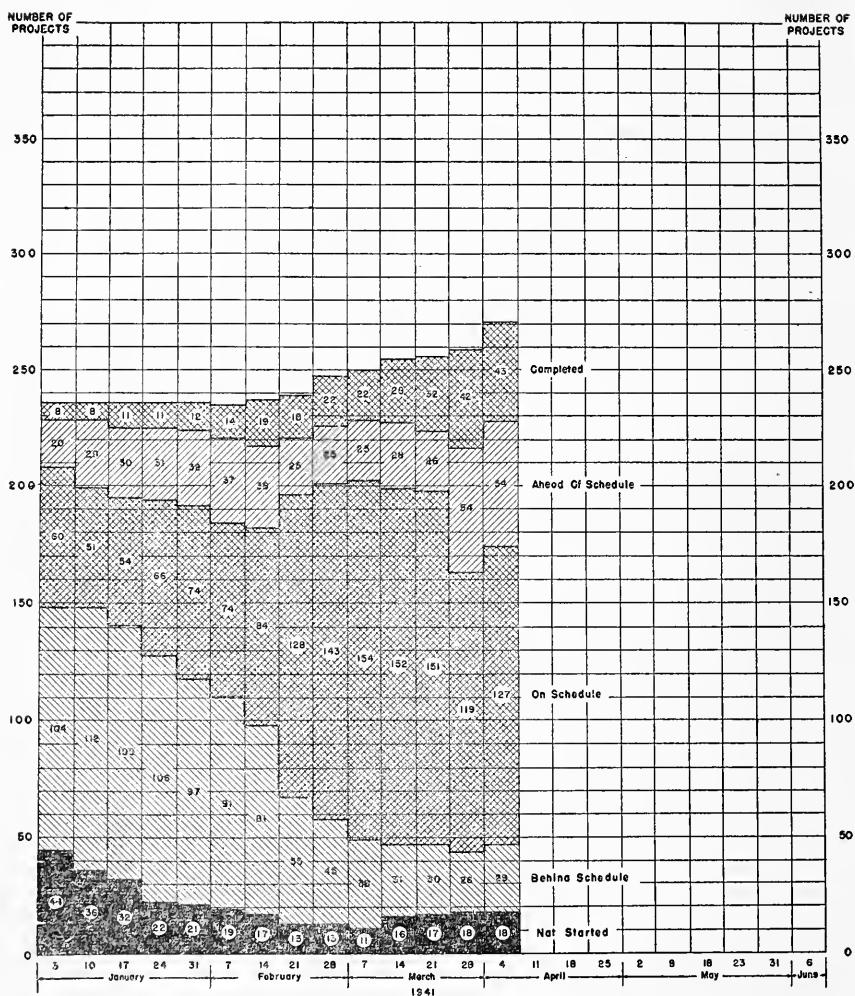
It is on that progress of the work on which I have made the statement that I have.

Then I would like to be backed up in things that I say so that you don't think that I am indulging in rhetoric or oratory, and I would like to read into evidence at this point what the Committee on Appropriations said, even as far back as February 26. It is eminently more

EXHIBIT No. 1

WAR DEPARTMENT
Office of the Quartermaster General
Construction Division

STATUS OF PROJECTS
EMERGENCY CONSTRUCTION



true now. This is what the report of this committee said, on page 6.¹

The CHAIRMAN. Committee of the House or the Senate?

Secretary STIMSON. The committee of the House. It was afterward sent to the Senate, and the Senate approved the same appropriation, but with a very brief report.

The CHAIRMAN. It is immaterial, but I just wanted the record to show.

Secretary STIMSON. This was the House committee, and I would like to read this, just two short paragraphs: ¹

Looking at the vast undertaking in the light of its magnitude of \$1,000,000,000 of construction, on more than 186 different projects in varied sections of the

¹House Report 152, 77th Cong., 1st sess., on the 4th Supplemental National Defense Appropriation Bill for the fiscal year 1941.

country for housing and training an army of 1,418,000 men, and to be accomplished in a very short time under all conditions of weather and topography, there is reason to praise the Army authorities for their accomplishments. It is easy to criticize and to find fault, but fairness compels a bestowal of commendation for the sincere, determined effort to do the best possible kind of a construction job under the worst possible conditions both as to expedition and cost.

It is highly commendable that the camps are being completed in good time with the finest accommodations, equipment, and facilities that have ever been furnished to any expeditiously expanded Army. With the funds provided in the bill for completion of the cantonments and camps and the additional funds to supplement those facilities, provision will have been fully made for facilities for the housing, health, spiritual welfare, comfort, entertainment, and training of the selectees and the inducted forces.

I am glad to say that the committee even at that time recognized that much credit was due to—they call him “Colonel,” but he is now General Somervell, for the intelligent and energetic administration that he has brought to that task.

Before I reach “Procurement” I call attention to the occurrence of two changes in this construction work that have taken place in order to help the expedition of it—or rather one change. I go back to my text.

In considering this progress it must be remembered that the Quartermaster Corps of the Army has been responsible for the planning and completion of a very large construction program other than that of troop housing. The cost of these additional construction projects amounts to about one-half billion dollars. They include manufacturing plants for the Quartermaster, Ordnance, and other supply services; storage depots, 20 air fields, 9 general hospitals, a general hospital as a hospital other than the ones contained at cantonments, and other construction work of miscellaneous character. The projects vary in size from a few hundred thousand dollars to 56 million dollars, which is the cost of the Indiana proving grounds and powder project. All of these projects like the housing projects are being prosecuted vigorously and are in a similar excellent state of progress. They are all included in the chart before you, which I have handed to you from General Somervell. But here is a change which has also been made and which I referred to, to alleviate the burden on one branch of the War Department.

Prior to the pending emergency the law had required that all construction in the nature of cantonments for the housing of troops should be done by the Quartermaster Corps and accordingly last summer the plans for the housing of all the forces covered by our defense program were taken up by that Corps. They had to be; the law then required that. Subsequently the burden of carrying out this immense and unprecedented program became too heavy for the existing force of the Quartermaster Corps, and, on the recommendation of the War Department, Congress wisely passed legislation permitting the division of this labor between that Corps and the Engineer Corps. On or about September 6, 1940, the construction of all of the cantonments, airdromes, and other facilities required by the Air Corps, other than a few projects which were then in an advanced state of construction, and also the construction at the new Atlantic bases acquired from Great Britain, were transferred to the Corps of Engineers. By this transfer the division of construction work as

between the Quartermaster Corps and the Engineer Corps results in the Quartermaster Corps now conducting a program of something over \$1,000,000,000 worth of construction and the Corps of Engineers conducting a program of approximately \$700,000,000 of construction. The construction projects which have been allocated to the Engineer Corps have been actively and efficiently prosecuted and are generally meeting the requirements of their schedule completion dates.

I have a report from the Engineer, which, however, is so large that I didn't bring it here today. It brings it up to March 1. If you care to inspect that report I would be very glad to have it here for you to cover that stage of it, but it is a volume about so thick.

The CHAIRMAN. When we come to that stage, Mr. Secretary, we will ask for it. You haven't a chart of that, have you Mr. Secretary?

Secretary STIMSON. I haven't a chart of that here. I will see if we can have one made.

The CHAIRMAN. If you can have a chart made, we would appreciate it.¹

Secretary STIMSON. I have been preparing this under very considerable pressure, as you realize.

The CHAIRMAN. Yes, sir.

Secretary STIMSON. General Somervell has rendered to me every week these smaller reports, so that it was easier to summarize and present them to you here. We have a number of these available if you want to see them.

The CHAIRMAN. We would like very much to have copies of those, Mr. Secretary, if you have them available.

Secretary STIMSON. The engineers have reported in a different way. The Under Secretary will be glad to take care of that.

Mr. McCloy calls my attention to one thing I didn't make clear in regard to this transfer to the engineers' work. When I spoke of the date of September 6, 1940, that was the date on which the authority was given by Congress, but it took until November to complete the transfer actually from hand to hand.

PROCUREMENT OF MATÉRIEL

Secretary STIMSON. Now I pass to an entirely different subject, the subject of procurement of arms. I have taken up, if I may summarize, in what I have spoken of this morning so far, first the difficulties of raising the personnel and training the Army, and of housing that Army in the cantonments. Now I am going to take up the problem that we have had in getting the weapons with which to train them after we induct the men.

The character of modern warfare has also had its effect on the procurement of arms. To plan for war today a nation should commence its preparations, at least, 3 to 5 years in advance. Some 7 years ago Germany began to concentrate on its preparation for war. It evolved a new technique of diplomacy, a new form of propaganda, and finally new tactical methods based on new weapons. The thought and energies of the entire country were devoted to preparation for war. In spite of repeated warnings, the democracies preferred not to compete with that preparation. As a result, in 1939 Germany was ready

¹ Under date of May 29, 1941, the War Department submitted a chart of schedules of construction projects allocated to Engineering Corps, which appears in the appendix on pp. 370-372.

to move toward its objectives, first without force and, then, at the first show of opposition to her plans, with terrific violence. Germany disclosed to the world a quantity and variety of modern weapons and, second, a method of employing them which have thus far achieved far-reaching results. The whole story of what has happened since that date has been a question of the preponderance of weapons. That is evident to practically everyone.

Last year the War Department was faced with the necessity of acquiring in a short time munitions adequate to meet the munitions which Germany had spent 7 years in producing.

The weapons of modern war are marked by greatly increased mobility and fire power, and it is just these elements which complicate and delay their manufacture. Weapons suitable for modern warfare almost invariably have to be manufactured so as to move faster and fire faster than did their counterparts in the last war.

In 1917 and 1918, with the country actually at war and with an army actively engaged in the field and with all the enthusiasm and devotion to the task which a nation at war could apply, it would have taken us, at the rate we're going, about 2½ years from the commencement of our effort before we could have fully munitioned our Army. Consequently, as I have already pointed out, we were obliged to purchase from our Allies nearly all of our heavy weapons. Today, assuming existing priorities are not altered, we shall, in spite of the greater complexity of modern weapons, do that job from 8 months to 1 year faster than we were doing it at that time in 1918.

The Army and the War Department made their initial and, perhaps, their chief contribution to the rearmament of this country in the prolonged studies and advance planning which took place long before there was any Office of Production Management to assist or any sufficient money available to put the studies and plans into effect. I wish to emphasize these facts, for I have found that in the outside world the fact that we are very far ahead of the condition that we were in in 1917 when we went to war is not recognized. The great difference is that the national-defense law, passed by the Congress, I think, in 1920, has done much in giving this Nation, through its Army, a start in the work of preparing a program for munitions. An immense amount of work was done in the intervening years, which has made it possible for us to get a flying start that we didn't get and couldn't get in 1917.

The CHAIRMAN. In other words, we had inaugurated, to some extent, a military policy which we didn't have up to 1920.

Secretary STIMSON. I am talking now of the industrial work of the Army. This was the industrial organization which it was able to make a business, and the methods of business and the acquaintance which it was able to give to its officers in the supply departments, through the Army Industrial College, and through all the methods which gave to us a greater knowledge of business and gave to the men a greater experience in business than they had before. The supply officers who handled this job were not only officers in the Army, but they were very skillful businessmen.

I state here again the capacity of the country to make munitions was studied in peacetime. Throughout these 20 years potential manufacturers were spotted and listed; prototypes were developed and built. That painstaking work has now been reflected in the speed and effi-

ciency with which requests for appropriations were presented to Congress and the orders placed once Congress appropriated the necessary funds. What took many months to do in 1917 we did in 1940 in a very small fraction of that time. That initial task has now been performed by the end of the Department of which Judge Patterson is head, and he will give you an explanation of it; and we are prepared to proceed with the maintenance and expansion programs that follow the first step, namely, the placing of the orders. In addition, the Department has recently been given the responsibility of instituting, over and on top of all this, a vast new program to cover the needs of those other nations whose integrity we feel is vital to our defense. Nothing like that was in our hands 20 years ago. There is an immense burden of ordering munitions under the lease-lend bill. It will proceed with that program, I firmly believe, with even greater speed and efficiency than marked the programs which were instituted last summer and last fall.

Then here is another thing that I wish to call to your attention because it is so commonly misunderstood. While the Army can place orders, it does not fill them. We are not munitions makers, except to the extent of less than 10 percent of our weapons. We have a number of arsenals, as you know, six arsenals which the Ordnance conducts, but 90 percent of the weapons we fight with we have to depend on American industry to manufacture for us. All we can do is to prepare the plant, make the designs, get the appropriations, and make the orders, and sign the contracts. Then business has to do the rest. The Army makes in its own establishments only a relatively small fraction of the arms and equipment which it uses. The actual production of by far the greater portion of our munitions is the responsibility of the private industries of the country which receive the orders. Thus far the Department has imposed its military program on top of the normal commercial operations of the country and to date the Government has done little to subordinate the civilian needs of the country to its military program. Very possibly we could improve our rates of production if we cut into civilian demands more. But the speed with which our rearmament program has gotten under way and the great improvements over our record in this respect in the last war is due, in the main, to the energy and efficiency of the officers and personnel of the General Staff and of the supply arms and branches of the War Department.

Now, I take up specifically two of the chief branches of those weapons, first ordnance, and afterward airplanes.

Comparison of the speed with which our procurement program was instituted in 1940 with similar efforts in 1917 is convenient only to measure our rate of progress with our accomplishments of 23 years ago, but it may be of interest if only for that purpose. Let us consider first certain ordnance items.

By the close of the last war we had reached a position in which we were able to supply our Army in France from sources in this country with rifles, bayonets, cartridges, and some other light munitions. All heavier munitions with which our soldiers fought was supplied by the French and the British. Our Army, as has been said, did its fighting with artillery purchased from France. We ordered over 10,000 75-mm. French guns to be produced in this country, but none was finished in 1917, and in 1918 we only succeeded in shipping 143 out of that 10,000 to France before the armistice was signed.

In the last war, in spite of the American familiarity with tractor machinery, and in spite of the fact that we ordered over 23,000 tanks to be produced in this country, not a single one of those tanks was finished in time for training purposes at home or for combat use overseas. Today our production of tanks is already well under way and it is going on in quantity production in spite of the fact that the present-day tank is a far more complicated and intricate piece of mechanism than was the tank of the last war.

We have many old-type machine guns on hand from the last war. Our production of these weapons is one of which we can be proud, but the demands for improved types of these weapons are great and exacting. With the need for heavier calibers and more intricate designs arising from aircraft, antiaircraft, tank, and antitank requirements, the problem of machine-gun design and manufacture has become much more complicated and difficult, but here again the Department was able to institute the program, select the types and the manufacturers, and place the orders practically as soon as the money was made available by Congress.

We have an entirely new line of artillery which we are preparing, and mortars, all involving new designs. These weapons have much greater mobility, range, and in many cases, fire power, than their World War counterparts. In all of these items we are far ahead of our 1917 schedules. Highly complicated antiaircraft guns—guns which are clocklike in their intricacy and which fire heavy caliber projectiles at phenomenal rates of speed have been developed and are now in production. In the World War only one gun especially designed for antiaircraft fire was completely finished in this country by the time of the armistice.

Before 1940 the War Department had anticipated the need for the new artillery types but it was not until September 1940 that money was available in sufficient quantity to enable the Ordnance Department to institute an adequate artillery program.

The development of actual warfare culminating in the breakthrough in Flanders necessitated some rapid modification of types but it is a tribute to the planning of the War Department that the designs required so little change after the reports of the performance of the various weapons began to come in from our observers. In ordnance items the chief modifications which actual warfare induced were in the design of tanks. The new designs were promptly put in production, however, and as a result all of our equipment now in production is thoroughly modern. One aspect of the ordnance program which is present as a retarding factor in 1940, and which was not present as a retarding factor in 1917, results from the competition which ordnance manufacturers must encounter with the aircraft suppliers for machine tools.

With the metalization of airplanes and airplane parts and with the greatly increased emphasis on the importance of aircraft generally, it has been found that conflicting demands for machine tools have arisen and all ordnance items, except aircraft armament, have been sharply subordinated in their priority to aircraft needs as well as to the needs of the Navy. But in spite of these delays, unless the priorities of ordnance items are further modified, the ordnance program should proceed in accordance with the above outlines, with

quantity production averaging about 1 year to 14 months after placement of the order, as contrasted with 2½ years in the last war.

Although the problem of aircraft procurement varies somewhat from that of ordnance by reason of the fact that the Department is dependent entirely upon private industry for the manufacture (and to a substantial extent for the design) of aircraft, the aircraft procurement program has also been marked by the shortness of time within which large orders were placed after the appropriations became available. Aircraft is entirely at the mercy of private industry. We never made any airplanes, never made them in our arsenals. We have six arsenals, in which we make a small percentage of our ordnance items; in aircraft we have not. Whereas in 1917, after war was declared, it was necessary to send a mission to Europe to find out what types of airplanes were required, the Air Corps in 1940 had already made that study and knew what types it wanted. Immediately upon receiving the necessary funds for their procurement, they were ordered, practically all within 1 month's time. That was last summer, as soon as the appropriations were made available. Congress made available approximately one and one-half billion dollars for the purchase of airplanes in September of 1940 as against the sum of \$365,000,000 made available for the production of planes in this country in July of 1917. Roughly, the airplanes today cost five times more than they did in 1917, and, while some allowance must be made for increased labor and material costs, these figures give a fairly accurate measure of the greater complexity of the modern planes which we now have to produce as compared with those of 1917. But in 1917 it was not until October—nearly 7 months after war had been declared—that a single one of the famous old DH-4's, the De Haviland planes, you remember, was ordered, and it was not until late in 1918, the following year, that the first planes were delivered in France. Those planes, by the way, although a standard combat type in 1917, could not anywhere nearly equal the performance of our basic trainer plane today. Some further conception of the magnitude of the task involved in modern aircraft manufacture can also be given by the realization that one of our newer type four-engine bombers will cost initially to manufacture the first one between seven and eight hundred thousand dollars. That is including the preliminary research and getting it into production. And even after full production has been attained each one of these planes will cost approximately \$300,000.

I am reminded by my friend at the side that that is without an engine.

The CHAIRMAN. Without an engine?

Secretary STIMSON. Without four engines.

The CHAIRMAN. They have to have four engines before they can fly, do they not?

Secretary STIMSON. They have to have four engines before they can fly.

The exigencies of actual combat brought about, as always, necessary modifications in our designs, but these modifications were mainly in armor and armament. Planes in production at the time of the breakthrough in Flanders were promptly modified and some slow-up of production, of course, resulted, but the planes ordered under the new appropriations embodied from the outset the new designs. There have

been at different times in the past comments about leak-proof tanks. I can assure this committee, I think, that every combat plane now being made has a leak-proof tank.

The CHAIRMAN. I am glad to hear it.

Secretary STIMSON. A notable instance of the farsightedness of American design is the case of the heavy multiple-engine bomber. One type of these bombers was designed by us as early as 1934 and has been in limited service—very limited by appropriations—for 5 years.

The CHAIRMAN. Is it superior to the German bomber?

Secretary STIMSON. So far as we can tell here, it is at least their equal. And that was developed by American brains in 1934.

The CHAIRMAN. That is what I wanted to know.

Secretary STIMSON. Although we didn't have the money to make them until 1940. We had a few. I don't mean that we didn't have any.

The CHAIRMAN. You had enough to test them out evidently.

Secretary STIMSON. Enough to test them out. And with the development of war there came certain modifications that I have already spoken of, and those applied even to these multiple-engine bombers. For instance, we have had to replace and put in, in even those first ones, the leak-proof tank, which wasn't dreamed of at the time they were made.

In aircraft procurement, as in ordnance, although we have greatly speeded up the work involved in placing orders with commercial plants, the general rule still remains true that it takes American manufacturers from 1 year to 1½ years in aircraft to reach quantity production.

I have made special reference thus far only to the procurement of ordnance and aircraft items. There are other supply services of the Army which have performed great tasks promptly and thoroughly. They are less spectacular and we do not hear much of them, partly because they do their job well and partly because their requirements, although enormous in the aggregate, can be produced with relative rapidity. The Quartermaster Corps has many procurement responsibilities other than its construction program. It provides the food and clothing for the soldier and, generally speaking, it provides the motor vehicles and other means by which he is transported from place to place. No difficulties are contemplated in the prompt completion of the Quartermaster equipment program.

The Engineer, Signal, and Medical Corps and the Chemical Warfare Service have been responsible for the planning and procurement of large stores of material, practically all of which has been ordered and great quantities of which are already on hand.

To summarize, the War Department, due to changed conditions of warfare, and to the unexpectedly successful tactics of an aggressor nation in Europe, was suddenly faced last June with a new and difficult problem. It involved the creation in this country of a large, highly mobile force, and it involved training, housing, and equipping it for modern combat. The War Department had the full responsibility of meeting this problem. By the middle of this summer this Army will be assembled, housed, and in the full course of its training.

I haven't stated thus far, I think, but I think you all know that we have in all branches of the Army in all localities considerably over a

million men. It is increasing so rapidly, about eleven hundred thousand now, and 700,000 of those, as I have said a little way back, are already in the new cantonments.

The initial phases of the War Department's production responsibility have been completed, and this summer the forces in training will be well on their way to being fully equipped. No soldier will lack the basic weapons sufficient to carry his training well ahead and his heavier equipment will be coming forward steadily and in substantial quantities. All of the work necessary to bring this about has been performed under the greatest pressure and at very high speed. From this point forward, the chief responsibility for the speedy completion of the equipment will rest upon American industry. The officials of the supply services and the War Department will continue to supervise, coordinate, inspect, and supply technical information in connection with the manufacture of equipment, but their contributions to date will have made it possible for commercial firms to advance the delivery of the equipment some 8 to 12 months ahead of our 1917-18 experience.

With the magnitude of the task and the speed and pressure under which it was performed, it is inevitable that some mistakes have been made; but, when the work of this committee is completed, I am confident that it will be found that the total of those mistakes will appear quite insignificant when set against the value of the time saved and the size of the task performed.

The CHAIRMAN. Senator Wallgren, have you any questions?

Senator WALLGREN. I have been particularly interested in the Secretary's explanation of the cost of airplanes. Is there any reason for what I think is an excessive cost, and the public thinks is an excessive cost, \$300,000 for an airplane without any engine?

Secretary STIMSON. Well, I think you will have to ask the representatives of the businessmen on that. I mean——

Senator WALLGREN (interposing). Do you believe, for instance, that there is a monopoly in any particular metal that might be used in construction of an airplane?

Secretary STIMSON. There is no monopoly so far as I know that has entered into the cost.

Senator WALLGREN. Let us just go into the manufacture——

Secretary STIMSON (interposing). There is a very distinct monopoly in aluminum, although steps have been taken to break that monopoly since the War Department entered on its program, by the making of contracts with the Reynolds Co.¹ I am sorry that the Under Secretary took this moment to go out, because he is the one who has had charge of that matter and can answer you in a moment.

Senator WALLGREN. I would like to go a little further on this.

Secretary STIMSON. I may say this, still in answer to your question: My own observation is that the whole thing sums up to the fact that a very small group of industry have experience and knowledge of the technique of airplane manufacture, and that has been the worst so-called bottleneck that our Army has had to face—the smallness of size of the airplane industry, the fact that the men in that industry stood quite apart from the ordinary methods of American industry. They had never handled mass production. All of the American air-

¹ Testimony of officials of Reynolds Metals Co. appears in Hearings, Part 3.

planes were hand-made planes, made to order—and the great difficulty we have had has been to pull them apart and make them make more planes if possible. That has been our sorest spot. Nobody could make these planes except these experienced manufacturers. If there ever were a monopoly that had a serious effect on it, it was that monopolistic fact of the small number of men who knew how to make planes.

Under Secretary PATTERSON. We audit all airplane contracts, Senator. The Air Corps, under the law of 1926 whereby it buys airplanes pursuant to competitive design, makes a careful audit of all airplane manufacturers' costs and keeps the prices in line with the costs, with which the manufacturers concur.

Senator WALLGREN. What excuse is there for this method of operation? I am given to understand that bauxite is brought up from Dutch Guiana to Memphis or some place in Tennessee. There it is processed into alumina.

Under Secretary PATTERSON. Mobile, isn't it? Some place down south.

Senator WALLGREN. It is processed there into alumina, then it is hauled all the way across the country to the Bonneville project in Oregon, and there it is processed into what is known as aluminum ingots. Then it is hauled all the way across the country to Kingston, Pa., where it is fabricated into airplane parts, wings, and so on. And then it is hauled again all the way across the country to the Pacific coast—a big portion of it—to Vultee, Douglas, and Boeing, to be manufactured into planes. All of this has to be paid for by our Government, doesn't it?

Under Secretary PATTERSON. Yes, sir.

Senator WALLGREN. Is that a sensible way efficiently to build airplanes?

Secretary STIMSON. If you had time; no, sir.

Senator WALLGREN. Don't you think we will have had plenty of time on our hands before we get through? We may be going for some time with this program. I think steps ought to be taken to bring the plants back to this coast or to bring plants out to the Pacific coast that can really do this job, because undoubtedly this transportation all enters into this competitive cost.

Secretary STIMSON. It is uneconomical if it can be eliminated. There is no doubt about that. And for that reason, I think, there have been steps taken by the War Department to build the ordnance plants which we have had anything to do with—these new plants which were originated by the efforts of Mr. Knudsen, Director of the O. P. M., in such a way as to obtain an approximation toward mass production which has never existed.

Senator WALLGREN. Offensive?

Secretary STIMSON. Oh, I think they are certainly susceptible of offensive use, like all weapons. It is pretty hard to say. I have wrestled with those adjectives of offensive or defensive weapons for many years, Senator, and I won't undertake to say that any weapon is only defensive or offensive.

Senator WALLGREN. In other words, what I am trying to get at is. Are we neglecting our airplane production for tank production?

Secretary STIMSON. No.

Under Secretary PATTERSON. It is just the other way around.

Senator WALLGREN. Is the Army still buying a lot of mules and horses to fight this war?

Secretary STIMSON. I presume it is buying some, sir. May I tell you that I have studied the reports of the German armies in the breakthrough in Flanders, as they have come gradually into our possession, and I can tell you, sir, that contrary to general belief in this country, the divisions which worked the havoc had more horses and mules than our divisions have.

Senator WALLGREN. Well, of course, some of the laymen don't know anything about that. That is news to me.

The CHAIRMAN. You will never be able to get along in the Army without a Missouri mule, will you, Mr. Secretary?

Secretary STIMSON. I think we are trying to as far as we can. But that I know from my first-hand reading of the organization of the German divisions in that battle.

Senator WALLGREN. That is all.

The CHAIRMAN. Senator Brewster.

Senator BREWSTER. I want to develop a little more your procedure under the National Defense Act of 1920, in planning for future emergencies. That involved study of the entire preparedness program, did it not, as far as the Army was concerned?

Secretary STIMSON. Yes; so far as any program could be foreseen before the emergency arose.

Senator BREWSTER. Yes. But you were one of those who foresaw this a considerable time before others; were you not?

Secretary STIMSON. But I wasn't the Secretary of War until a very inconsiderable time before now.

Senator BREWSTER. What was the date of your accession?

Secretary STIMSON. I think the 9th of July.

Under Secretary PATTERSON. Something like that.

Secretary STIMSON. I think it was the 9th of July that I took the oath of office.

Senator BREWSTER. I don't assume that you intend that to reflect on your predecessors.

Secretary STIMSON. I don't make any reflection, and I don't intend to make any admission that I knew all the things that your question implied. I did not.

Senator BREWSTER. To what extent, last summer before the passage of the Selective Service Act, did you make surveys for the possible location of cantonments?

The CHAIRMAN. May I say, Senator, that that is a specific subject into which this committee is going to go in detail?

Mr. FULTON. With other witnesses.

Secretary STIMSON. I can only refer you to the reports of the men who did it—the Chief of Staff and the members of the General Planning Division of the Chief of Staff, members of the Quartermaster Department, and others. There was a large organization provided for that purpose. I did not go into it.

Senator BREWSTER. Were you personally satisfied that everything possible was done to provide for this possible emergency from the time you took office, as far as plans of the War Department were concerned?

Secretary STIMSON. So far as I had the matter brought to my attention, I thought the thing was progressing as well as could be expected in view of the time pressure and the delays that I mentioned, which brought the actual starting until after September and the actual construction work 2 or 3 months later than that.

Senator BREWSTER. In the procurement, what is the system under which you now operate as far as your relations with the Office of Production Management are concerned?

Secretary STIMSON. There may be exceptions, but, very roughly, the dividing line is this: The Army has the responsibility for deciding what weapon it wants, and to get the designs and draw the designs of that weapon; it has the responsibility of deciding, also, the amount of weapons of that kind that it needs; it has the responsibility of deciding, as far as possible, when it wants them; and it has the responsibility now of making the contracts with the manufacturers who ask them, negotiating and making the contracts. Mr. Knudsen, of the O. P. M., has the function of facilitating the production in general after that step.

But that statement of mine is an approximation, because as time goes on Mr. Knudsen necessarily overlaps somewhat the officers in the work of selecting the manufacturers. We originally made a list of manufacturers during this interval and tried to classify industry into the classes of men that could make the different weapons, but that, like all prognoses, is merely an approximation of what can be done and is subject to change when the rapid impact of events comes on you afterward. At present all I can say, and all that it is proper to say, is that the Office of Production Management occupied by Mr. Knudsen is charged with the carrying on of the supervision of industry and assisting industry in their work after the contracts are placed.

He also has this, which is a detail that I omitted to state: Under the organization as now created, he has also the approval of contracts beyond a certain size which the officers negotiate. His approval has to be obtained.

Senator BREWSTER. What is that size?

Secretary STIMSON. \$500,000.

Senator BREWSTER. That is, you are not allowed under the Executive order to place orders for material for the Army in excess of \$500,000 without his approval?

Secretary STIMSON. That is the fact as I understand it.

Under Secretary PATTERSON. The order says "all major or important contracts." That has been interpreted by agreement between the War and Navy Departments and Mr. Knudsen to mean contracts in excess of \$500,000. We also do get his approval on certain orders under that that we deem important.

Secretary STIMSON. I am going to say this: Unfortunately, just as I got into my car, I received a direction from the President that I was to report to him at 12:15.

The CHAIRMAN. You are excused, Mr. Secretary, if that is the case.

Secretary STIMSON. These questions which are being asked now are questions which come within the direct and personal attention of the Under Secretary. He has charge of procurement.

Senator BREWSTER. I may say that I do value your opinion a great deal because of your experience, and I do want to address some questions to you at your convenience.

Secretary STIMSON. I will come back, or it may be that you could ask the Under Secretary.

The CHAIRMAN. May I make a suggestion to the committee? Would it be agreeable to you, Mr. Secretary, and to the Under Secretary to come back at 2 o'clock? Would that be perfectly satisfactory to the committee?

Secretary STIMSON. So far as I know, but if I find that I am delayed, can the Under Secretary come?

The CHAIRMAN. Certainly, he can go ahead until you arrive. The committee will take a recess until 2 o'clock.

(Whereupon, at 12 o'clock, the committee recessed until 2 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2 p. m. on the expiration of the recess.

The CHAIRMAN. The committee will come to order.

The Under Secretary of War will proceed with his statement, and when the Secretary of War comes we will proceed with his questioning.

TESTIMONY OF HON. ROBERT P. PATTERSON, UNDER SECRETARY OF WAR

Mr. PATTERSON. Mr. Chairman and gentlemen, I have a prepared statement which I have worked quite hard on and I will read that if the committee wishes.

The CHAIRMAN. You may proceed, Mr. Secretary. Are copies of that available for the committee?

Mr. PATTERSON. Yes, sir.

The Secretary of War has described our military problems and has compared them with our problems in 1917. I will describe the procurement work, for which I am responsible under the direction of the Secretary.

We in the War Department are trustees, charged with the duty of raising, training, and equipping a powerful Army at a cost of billions of dollars, and it is fitting that we render an account of the manner in which we are performing our trust. We have been vigilant, we believe; but if abuses have crept in despite our vigilance, they must be eradicated.

I recall to you our military situation a short time ago, last summer. On July 1, 1940, the strength of the Regular Army was 263,000. We had equipment for these men, much of it not modern. Housing for troops was scattered in small posts. There was not a cantonment in the continental United States large enough to hold a division.

On the industrial front—and machine power is as important today as manpower—we were even more poorly prepared. While we have a great industrial economy, we have never had a full-time munitions industry. On July 1, 1940, our munitions industry was virtually nonexistent; quantity production of military airplanes was unknown; we had few facilities for production of tanks and guns. The Government arsenals were wholly inadequate for an enlarged Army.

Our situation in July, 1940, may be gaged by comparing the amounts of money that the Army had available for equipment in past years. After all, what you have to spend measures what you can

buy. In the fiscal year, 1937, the Army expenditures for equipment and facilities amounted to \$66,000,000. This was increased slightly in each of the two following years, until in the fiscal year 1939, the expenditures for equipment amounted to \$95,000,000. In the fiscal year 1940 they were much larger, \$345,000,000.

Compare these amounts with the funds made available to the Army thus far for the year ending June 30, 1941. Prior to passage of the Fourth Supplemental Appropriation in March, the funds available for equipment and facilities for the current fiscal year exceeded 6 billions. With the Fourth and Fifth Supplemental Appropriations and \$4,200,000,000 of the \$7,000,000,000 lease-lend appropriation to be procured through the Army, funds appropriated for the Army in this fiscal year, for equipment, facilities and other military purposes, exceed 17 billions.

On August 27, 1940, the Congress authorized the President to call out the National Guard. On September 16 the President approved the Selective Service Act, providing for the training of not more than 900,000 men a year.

Prior to passage of these laws, the War Department did not know what the size of the new Army was to be, nor did it have the funds required to house and equip the new Army. Our big push in procurement did not begin until September 1940, only 7 months ago.

I point out these things only because I think it important to view our progress today in light of the immediate past. We have been under urgent pressure to get things rolling. Speed has been of the essence, and the time has been short.

The strength of the Army for the first time since 1919 is over 1,000,000 men. By June of this year, we will have 1,400,000 men under arms. Our procurement program for essential items has been for an Army of 1,400,000 men, and for critical items (meaning those not readily obtainable from ordinary commercial sources) for 2,000,000 men. Think what an Army of 1,400,000 men means in housing alone. It means constructing many large cities equipped with all utilities, like Camp Shelby with 50,000 men, which will be the second largest city in Mississippi, and we have camps larger than Camp Shelby.

So the objective has been to provide essential items for 1,400,000 and critical items for 2,000,000 men; and there have been two factors of controlling importance in working toward the objective: First, the need for utmost speed; and second, the necessity of building and equipping plant facilities for producing the required armament.

The task has been to transform money into guns and powder, tanks and airplanes, shoes and shirts, camps and plants. I shall outline the procedures by which the War Department carries on that work.

The general staff plans the equipment of the Army. It states the kind of equipment needed, the military characteristics of the equipment, and the quantities to be obtained. The supply services are charged with obtaining the equipment. There are eight supply services: Air Corps, Ordnance Department, Quartermaster Corps, Corps of Engineers, Signal Corps, Chemical Warfare Service, Medical Department, and Coast Artillery Corps. My office supervises, directs, and coordinates the work done by the supply services. It also does the planning of supply. As Under Secretary, I am charged, under direc-

tion of the Secretary, with "supervision of the procurement of all military supplies and other business of the War Department pertaining thereto and the assurance of adequate provisions for the mobilization of material and industrial organizations essential to wartime needs."

The executive officer of the office of the Under Secretary is Maj. Gen. James H. Burns. In the office we have a planning branch, under direction of Brig. Gen. H. K. Rutherford, which supervises preparation of plans for industrial mobilization and procurement; a purchase and contract branch, under direction of Brig. Gen. J. W. N. Schulz, which examines contracts subject to my approval, and works out procurement procedures; a production branch, under direction of Col. S. P. Spalding, and a statistics branch, under direction of Col. Leonard P. Ayers. For coordination with Navy, we have the Army and Navy Munitions Board, of which the Under Secretary of the Navy and myself are the heads.

I might say, too, that we have the Army Industrial College under direction of the Under Secretary of War. The Army Industrial College has been growing for a good many years. It trains officers of the supply services in the procurement of supplies and in the general industry of defense.

The CHAIRMAN. Where is that school, Mr. Secretary?

Mr. PATTERSON. It is right now in the Social Security Building. The course has been a 4-month course. Under the emergency situation it has been shortened to 3 months, and the course is attended by, I think, right now in the current course 90 Reserve officers. We also have some naval officers as well as Army officers in the Army Industrial College, and a few Marine officers. But the bulk of the students are Reserve officers of the Army.

When I came here in the summer, I think there were 60 students in attendance. We stepped up that by calling in Reserve officers to take the course. They are all called to active duty as soon as they have finished the course, and they have been of great aid both to my office and to the supply services in going on active duties as soon as they have completed the course. We think the course is of very great value to the supply services.

In the procurement program the War Department has been greatly aided by the National Defense Advisory Commission and also by the Office of Production Management.

Less than 10 percent of our ordnance requirements are manufactured at Government arsenals. All other military supplies are procured by the supply services from plants managed by private industry. One of our main jobs, therefore, is contracting.

The bulk of the contracting is done by three of the eight services: the Air Corps, which from July 1, 1940, to March 31, 1941, entered into contracts totalling \$2,131,500,000; the Ordnance Department, \$1,914,000,000; and the Quartermaster Corps, \$1,166,000,000. The other five supply services obligated \$310,000,000 for equipment. In addition to these sums, \$763,000,000 available for new facilities for expediting production has been obligated. In all, 95 percent of the \$6,623,000,000 made available for equipment and facilities prior to the passage of the Fourth Supplemental Appropriation Act has been obligated.

Purchases are in large measure decentralized, handled in the field. The Ordnance Department, the Quartermaster Corps, and several other services have district offices or depots in various parts of the country, and large quantities of supplies are purchased at those offices. The development of this decentralized system of purchasing is, in my opinion, a most useful feature of our procurement organization.

When it became evident last summer that the procurement program would be greatly accelerated and that the supply services would be called on to produce vast quantities of equipment, the supply services drew up programs of procurement outlining their plans for speeding up the normal procedures. The programs that were submitted conformed to the industrial mobilization plan, developed by the Army and Navy Munitions Board and based on years of study. These programs were reviewed by the Assistant Secretary and were submitted to the National Defense Advisory Commission. I am filing copies of these programs with the comments on them made by the Assistant Secretary.

The purchases by the supply services have been planned and executed in accordance with these basic programs.

PLANT EXPANSION PROGRAM, UNITED STATES ARMY

Mr. PATTERSON. For most of the items of our procurement program, we cannot do what a man does when he buys a car: select the make he wants, go to a local dealer and drive off with the car. Even ordinary supplies like clothing and shoes are purchased in such large quantities that their procurement involves a laborious process of planning and contracting. But in many of the critical items, the armament items—guns, and tanks, for instance—virtually no commercial production was available. As a result, the Department had to bring into existence the plants and facilities necessary to their manufacture.

In June 1940, \$200,000,000 was appropriated or authorized to expedite production by the expansion of facilities; in September 1940 an additional \$325,000,000 was made available for this purpose; and in October, an additional \$178,000,000. To these amounts were added funds from certain other appropriations, make an aggregate of \$917,000,000 available for new facilities to expedite production of military supplies.

Under the appropriations for expediting production, the approval of the National Defense Advisory Commission and of the President are necessary for each project built with these funds.

Senator BREWSTER. You mean that is in the appropriation?

Mr. PATTERSON. Yes, sir; that is in the appropriation act; not for the ones passed in the current calendar year, but in all of the appropriations for these facilities passed in 1940 for the fiscal year 1941. The approval of the Advisory Commission and of the President were conditions.

The necessary approvals have been given for plants to manufacture airplanes, tanks, machine guns, shells, small arms, ammunition, powder, TNT, and many other items of armament.

I might say here that we found very quickly that if we approved a project to make airplane engines, for example, that was only the beginning of the story, because then we had to plan and carry out

projects for subcontractors, expansion of their facilities, the manufacture of the airplane engine.

Manufacturers of the airplane engines told us:

That is all very well, it steps up our floor space and skilled labor and gives us facilities to make airplane engines, but we can't make any more until you do the same for the X company from whom we purchase valves, the Y company from whom we purchase pumps, and so on.

In the one project out in Cincinnati for airplane engines, expansion of the plant of the Wright Engine Co., I think we had some 30 subsidiary projects for expanding the facilities of the subcontractors whose goods flowed into that plant in Cincinnati.

One hundred and fifty-two projects have been recommended and approved, and the entire \$917,000,000 has been obligated.

Under the Fifth Supplemental Appropriation Act recently passed, an additional \$868,000,000 was appropriated for new plant expansion. We are ready to put this money to work, and contracts for some of these new projects will be signed shortly.

I might say, Senator Brewster, that this appropriation act does not require the approval of the Advisory Commission. The approval of the President is required, and there has been a new Plant Site Committee set up in the O. P. M.—Office of Production Management—to which these projects will be submitted by the War Department. That is not a matter of law; that is just a matter of our own regulation.

Senator BREWSTER. And that is preliminary to the submission to the White House, I assume.

Mr. PATTERSON. Yes, sir.

Senator BREWSTER. The President in some measure might be guided by their view?

Mr. PATTERSON. Yes, sir.

I am filing as an exhibit typical forms of contracts for facility expansion. These are of three general types. Under each of them industrial companies design, construct, and operate the plants.

(The document referred to was marked "Exhibit No. 2" and is on file with the Committee.)

Mr. PATTERSON. One type provides for straight Government ownership. These plants are dealt with as permanent establishments to be owned by the Government. The powder plants that are in the course of erection are an example.

The second type is the so-called emergency plant facility contract, the form of which was developed by the War Department, the Navy Department, and the National Defense Advisory Commission. The new facilities or plants are privately financed in the first instance, and the Government reimburses the contractor for the cost in five annual installments. At the end of 5 years the plant belongs to the Government, unless the contractor exercises his option to purchase by paying to the Government the cost of the plant less depreciation. Several airplane plants have been built under this plan.

I might say that under the first type that I have discussed we generally financed the building of plants for which there is not foreseen there will be any commercial use in ordinary times—a powder plant, a shell-loading plant, TNT plant—items that are of value only to the Army or Navy. Under the second type and under the third type that I will mention in a moment have been financed expansions of plants for which there may be some civilian use in normal

industrial times—airplane plants, the expansion of airplane engine plants, ammonia plants, things of that sort.

Senator BREWSTER. How is the depreciation determined?

Mr. PATTERSON. The depreciation in the emergency plant facility contract is according to a set scale attached to the contract and agreed upon at the outset by the War Department, Advisory Commission, and the contractor.

Senator BREWSTER. Does that appear in these?

Mr. PATTERSON. Yes; it is in an appendix to the contract.

Mr. FULTON. Does it vary with each contract or is it always the same?

Mr. PATTERSON. I think it varies. It doesn't vary with each company, of course. If two companies were making the same product and the plant was for the same article they would get the same terms, but I can imagine a different rate of depreciation for airplanes than for ammonia or brass, or something of that sort.

I digressed a minute on these new plants.

A third type of new plant expansion is the so-called defense plant contract under the Defense Plant Corporation, a subsidiary of the Reconstruction Finance Corporation. The Defense Plant Corporation finances the construction of the new plant, retains title to it, and leases it to the manufacturer for a 5-year term. The manufacturer has an option to purchase at cost less depreciation. In certain cases the War Department agrees to reimburse Defense Plant Corporation for part of its outlay. In all cases the War Department agrees to request funds from Congress to reimburse the Defense Plant Corporation for the money which Defense Plant Corporation does not receive from the initial payment by the War Department or as rental from the manufacturing contractor.

Senator BALL. What type of plants come under that third?

Mr. PATTERSON. The same as under the second. They are all alternate plans for the same type of job. A great many airplane parts plants have been handled under the Defense Plant Corporation Contract.

Senator BALL. Where private capital is not readily available?

Mr. PATTERSON. Either not readily available or they don't want to put it out. The Reconstruction Finance Corporation handled all that.

I might say here, I haven't mentioned it in my written statement, that we have had excellent cooperation from the R. F. C. subsidiary, the Defense Plant Corporation, and when the question came up a short time ago whether they wanted us to continue the present practice with them, we said we most certainly did want them to continue. The work has been very ably handled over at the Defense Plant Corporation. It is under the general charge of Mr. Schram of the R. F. C.

Senator BREWSTER. Do you have reports from them on other operations?

Mr. PATTERSON. Yes.

The CHAIRMAN. In fact, we will hear the Defense Plant Corporation before we get through with this.

Mr. PATTERSON. I might say that at the beginning they wanted us to commit ourselves for three-fifths of the cost to be paid over a 2-

year period. As our funds began to run short around in December or January for new plant construction, we persuaded them to reduce that to two-fifths, and they got still shorter along in February until the new funds came in, and in some of those instances our agreement to reimburse the Defense Plant Corporation only takes a conditional obligation. If we get the money from Congress—and we agree to ask for it—we will make the Defense Plant Corporation whole.

The CHAIRMAN. It merely goes out of one pocket of the Government and goes into another. Isn't that true in the long run?

Mr. PATTERSON. Exactly. So long as the work was going forward I was willing to sign up on terms that Mr. Jesse Jones thought fair to both parties. As Senator Truman has said, it is money out of one pocket into the other pocket so far as our relations between the War Department and the Defense Plant Corporation are concerned.

Senator BREWSTER. Has there been a specific appropriation for the Defense Plant Corporation at all?

Mr. PATTERSON. It was specifically authorized by Congress last June. As to whether the amounts were set forth or not, I am not certain. The R. F. C. was authorized to set up such a corporation with such power last June.

Senator BALL. How about these plants of the first type, the powder plants and strictly munitions plants? Is it anticipated they will be a permanent asset?

Mr. PATTERSON. They are being built to last. They are not jerry-built affairs to be torn down in a year or two.

Senator BALL. In other words, if this emergency is over in 2 or 3 years, and we hope it will be, you can put the machinery in grease.

Mr. PATTERSON. They can be stand-by facilities.

Senator BALL. And be available for some years, at least.

Mr. PATTERSON. That is the policy of the War Department, to have them available for stand-by facilities.

The CHAIRMAN. Proceed Mr. Secretary.

Mr. PATTERSON. There is sound policy, I submit, behind these methods of building new productive facilities. We may compare these methods with the practice in 1917-18. In many contracts for munitions made at that time, the price paid by the Government to the contractor included the contractor's cost of building a new plant. As a result, the contractor owned a new plant paid for by the Government, and he also had his profit on production of the munitions. The present system of using the straight Government ownership contract, the emergency plant facility contract, or the defense plant contract—the three types I have just described—for all large production projects is designed to prevent such an enrichment of the contractor. Plants paid for by the Government will be the property of the Government, unless contractors purchase them by paying cost less depreciation.

One other method of assisting facility expansion may be mentioned. The Ordnance Department had accumulated in the arsenals surplus machine tools for production of critical ordnance requirements. Over 3,000 machines have recently been leased to manufacturers having ordnance supply contracts. This foresightedness has resulted in the saving of time in getting into production.

METHODS OF PROCUREMENT

Mr. PATTERSON. In July 1940 the Department was permitted by legislation to make contracts "with or without advertising," and to employ cost-plus-fixed-fee contracts. The fixed-fee must not exceed 7 percent of estimated costs, and in contracts for building construction at military posts must not exceed 6 percent of estimated cost. Thus in addition to the procedure of contracting by "advertising" for competitive bids, under which the contract goes to the lowest responsible bidder, the War Department "without advertising" may let contracts after negotiation. Contracts let without advertising, which I shall refer to as negotiated contracts, may be for a lump sum or for cost-plus-fixed-fee.

We have made rules to govern the type of contract to be made. The rules are set forth in circulars to the supply services, which I am filing with the committee. These are circulars which were made along last July and August.

Under our established procedure:

1. Negotiated contracts are resorted to only when necessary to expedite the defense program. The general rule is the advertised contract, and departures are permitted only for good cause.

2. Where negotiated contracts are resorted to, competition by informal inquiry is obtained wherever possible without delay to the program. In lieu of strict public bidding, the supply services maintain a competitive situation by obtaining informal bids from several known sources of supply.

3. In placing negotiated contracts, consideration is given to increasing productive capacity by developing more than one source of supply and to avoiding overload of plants or congestion of labor power, or communications in any locality.

4. Cost-plus-fixed-fee contracts are made only in cases where use of such contracts is deemed necessary to expedite the program.

5. Negotiated contracts involving \$500,000 or more are made only on recommendation of the chief of the supply service and on my approval. Similar contracts of less than \$500,000 are subject to approval of the chief of the supply service or under such safeguards as he may prescribe. All cost-plus-fixed-fee contracts are subject to my approval. In submitting cases, information is given on the necessity for proceeding without advertising, the bidders solicited, comparative prices, and fairness of price.

Sixth and last. All important contracts—in practice, contracts in excess of \$500,000—are subject to approval by Mr. Donald Nelson, Director of Purchases of the Office of Production Management. Formerly these contracts were approved by Mr. Knudsen or Mr. Nelson of the National Defense Advisory Commission.

Senator BREWSTER. Is that a matter of Executive order?

Mr. PATTERSON. Yes, sir.

Senator BREWSTER. Of the President?

Mr. PATTERSON. Yes, sir. The Executive order of last June ran to Mr. Knudsen on all important contracts. The present system whereby Mr. Nelson, of the O. P. M., reviews those contracts is by cooperation and agreement between the department and the O. P. M. I don't think it is covered by any express Executive order, but we have agreed with the O. P. M. to submit those same contracts to Mr.

Nelson. We don't submit the contract, we submit the proposal for a contract. In other words, we write him a letter describing the proposed contract, or the proposed order, and he gives his approval, say, then we go on and draft and execute the contract. But he doesn't go over the exact terms of the contract.

Senator BREWSTER. To what extent does that result in duplication?

Mr. PATTERSON. Duplication?

Senator BREWSTER. Yes; of the review of the contract.

Mr. PATTERSON. He doesn't review the detailed terms of the contract, Senator Brewster.

Senator BREWSTER. No man, in your place or his, can do all of this work, which is necessarily a vast amount. How far does he accept all of the investigation and consideration of your department or how far does he have an independent staff?

Mr. PATTERSON. He has an independent staff, but I think you will have to ask him how far they delve into the case. He has quite a big staff.

Senator BREWSTER. How much time do they ordinarily take in clearing?

Mr. PATTERSON. They work pretty fast; 2 or 3 days.

Senator BREWSTER. From the time you send it over until you get it back?

Mr. PATTERSON. Yes. They pass upon them promptly and almost always approve them, of course.

Senator BALL. I was going to ask what the percentage of contracts was that they have held up.

Mr. PATTERSON. A very small number. I couldn't say. They generally go right through the works and come back in the course of 2 or 3 days, approved. Then we go ahead, of course, and come to an agreement with the contractor and draft the terms. The outline given to Mr. Nelson in general shows the item, the quantity, the approximate price, the place of production, and, I think, the time of delivery; it outlines the proposed deal.

Senator BALL. What angle is he supposed to check on the War Department?

Mr. PATTERSON. He is supposed to check the whole thing. I think in the main, though, it is to make sure that there isn't a bunching up of orders on some one producer. We keep in touch with the Navy orders to some extent, but I suppose he takes into account Navy orders and orders by the Procurement Division of the Treasury Department, all Government purchasers.

Under these principles that I have just outlined, orders for clothing, shoes, blankets, and other equipment readily produced by ordinary facilities have generally been by advertised contracts; contracts for equipment on which the sources of production are limited, such as ordnance and ammunition, have generally been made on a negotiated basis for a fixed price; and contracts for construction of camps and industrial plants, large jobs where speed has been so essential, have generally been made at cost plus fixed fee. Airplanes have, for the most part, been purchased under lump-sum contracts and have in general been the types and modifications for which awards had previously been made as a result of design competitions under the act of July 2, 1926. That prescribed a specific procedure for the purchase of airplanes by the War Department.

Airplane contracts have so-called escalator clauses, under which the lump sum is increased or decreased in accordance with changes in labor and commodity indices applicable to the industry.

From July 1, 1940, to March 1, 1941, the War Department has entered into about 739,000 contracts at an aggregate estimated cost of \$6,062,000,000. Of these, approximately 733,000 contracts, with a cost of \$1,615,000,000 were let pursuant to advertising to the lowest responsible bidder; approximately 5,000 contracts, with a cost of \$1,800,000,000 were let on a negotiated basis for lump sums; and slightly over 200 contracts with an estimated cost of \$1,738,000,000 were negotiated for cost plus fixed fee. In addition, there are approximately 70 contracts for new facilities costing \$300,000,000, and orders were placed with Government arsenals for an additional \$500,000,000. These are round figures, but they give the general lines.

Senator BREWSTER. The 200 contracts were largely cantonments, were they?

Mr. PATTERSON. Yes, sir. We have some ordnance items on a cost plus fixed fee, new items, where the manufacturer's costs cannot be predicted or estimated with a fair degree of accuracy. Some of those have been on a cost plus fixed fee. I know that we have several contracts for production of machine guns at cost plus fixed fee.

I should mention one other type of contract, resorted to where speed is of paramount importance. This is the so-called letter of intent, a letter contract developed in August 1940. In the letter the Department states that a formal contract is contemplated, directs the contractor to start production at once, and agrees that if the formal contract is not made by a given date, the Department will make the contractor whole for his expenses up to a specified amount and will take over the equipment and materials acquired by him in reliance on the letter. While called letters of intent, these are actual contracts. We have issued some 275 letters of intent. They have proved to be a useful device for speeding up production, saving as much as 4 months in some cases, and thus far there has not been any loss to the Government under the indemnity clause in the letters.

SELECTION OF CONTRACTORS FOR MATÉRIEL

Mr. PATTERSON. Where procurement is by advertising, as is commonly the case in supplies purchased by the Quartermaster Corps, the contract goes to the lowest responsible bidder. There is no problem of selection. The discussion that follows has to do with procurement without advertising or negotiated contracts.

In procurement without advertising the responsibility for selecting the contractor is, in the first instance, on the supply service concerned. The selection made by the supply services is subject to approval by me as Under Secretary and by Mr. Knudsen or Mr. Nelson in cases involving \$500,000 or more. I do not select contractors or indicate to the services that particular concerns be chosen. Occasionally I have disapproved the contractor selected and have directed the supply services to make another selection.

The selection of contractors is not a matter of chance, much less of favoritism or partiality. A sound system has been evolved, and inasmuch as the problem varies in the various supply services, different systems varying somewhat in detail, at any rate, have been worked out

in the services, and I will discuss the different kinds of contracts and the selection of the contractors under each kind. I won't say that this is the universal rule even there, but it is the general rule and I know of no departure from it.

By munitions I mean the armament items. Of course, we can define munitions broadly to mean any kind of supplies for the Army. I take it here in the narrower sense. Under the industrial mobilization plan, directed in the National Defense Act of 1920 and developed by the Assistant Secretary's office over the last 20 years, surveys were made of industrial plants that could most readily be converted to manufacture of munitions.

Senator BREWSTER. Have you taken over those functions of the Assistant Secretary?

Mr. PATTERSON. Yes, sir.

Senator BREWSTER. So that you are continuing his office?

Mr. PATTERSON. Yes, sir. When the office of Under Secretary was created last December, the statutes that had placed upon the Assistant Secretary the industrial-mobilization duties were placed on the Secretary. The statute was amended and the entire responsibility centered upon the Secretary of War. Then, by internal regulation, the Secretary gave to the Under Secretary the same duties and responsibilities that had formerly been those of the Assistant Secretary, particularly as to industrial mobilization and procurement.

Senator BREWSTER. That was last December?

Mr. PATTERSON. Yes, sir. From a survey of 20,000 plants an inventory of some 10,000 plants was prepared and kept current. An allocation system was developed, allocating industrial companies to manufacture of critical items that would be required in an emergency.

I might say here that under that allocation system certain plants were designated as plants for naval items, other plants for the manufacture of Army items. Then, in the Army and in the War Department they would allocate a plant to the Signal Corps, another plant to the Ordnance Department, depending upon the item that that plant was believed to be most readily capable of producing by the slightest change—not very slight changes, either, but still more readily suitable for production of that particular item than a company that was engaged in a wholly different line of production.

When the burden of the present defense program was placed on the Department, the supply services immediately started operating under the industrial-mobilization plan. They promptly placed orders for munitions with plants previously allocated, using informal competition wherever possible. In this way, the Ordnance Department has placed 85 percent of its orders for small arms, artillery, and ammunition components with industrial concerns already familiar with the problems.

The industrial-mobilization plan has worked well in emergency. The 1917 spectacle of the Army and the Navy crowding each other in the placing of orders and of the supply services of the Army getting into one another's way in the same plants has not been repeated. Months of valuable time have been saved. That, in the main, is the way contractors have been selected for the production of armament items.

In selecting contractors for munitions, the supply services also took advantage of the educational orders that had been placed in

recent years under the act of July 27, 1937. Due to these educational orders, a limited number of industries were already tooled up for munitions. For example, an educational order of five recoil mechanisms for antiaircraft gun mounts had been placed with the R. Hoe Co. in April 1939. This is an intricate mechanism, and the company, a printing press manufacturer, undertook to make it. When the need for rapid production came, the Ordnance Department placed a production order with the Hoe Co. for 660 recoil mechanisms, and two later orders were placed with the company. Deliveries will be made soon. Through this educational order we have been able to obtain earlier deliveries because the Hoe Co. already had machine tools for limited production and was familiar with the work required, and a source of supply for an intricate mechanism was developed which otherwise might never have been found.

SELECTION OF CONSTRUCTION CONTRACTORS

Mr. PATTERSON. The Construction Division of the Quartermaster Corps has charge of all construction work connected with the Army, except fortifications, and also except construction at Air Corps stations and plants and at the Atlantic island bases, which were recently placed in charge of the Corps of Engineers.

When the need for quick construction of troop shelter became evident with the calling out of the National Guard and the adoption of Selective Service in September 1940, the Quartermaster Corps determined that in the case of the larger camps the time element made necessary the use of the fixed-fee contract. It would have taken months to draft plans and specifications and engineering lay-outs in sufficient detail to permit competitive bidding, and we did not have the money required to get the plans and specifications. I approved of that determination.

In July 1940, a Construction Advisory Board, consisting of three qualified civilians appointed by the Secretary of War, was formed in the Construction Division of the Quartermaster Corps. This Board has classified 4,200 contractors who have filed applications for construction work.¹ From this inventory or list the board nominates three who are believed to be the most competent to handle the particular project. Contractors from the locality are given preference because of their familiarity with local conditions on labor and materials, and contractors from outside the locality are chosen only when local contractors are deemed not to have sufficient skill or experience to do the job in the time required. This process of elimination is a difficult task.

The nominations of the board are preliminary only. From the three concerns nominated, the Chief of the Construction Division, General Somervell (formerly General Hartman) selects the concern which in his opinion can do the work most effectively. The Chief of the Construction Division then negotiates with the prospective contractor as to the fixed fee and other details, and reaches a tentative agreement. Mr. Harrison, an expert in building construction under Mr. Knudsen, is then consulted and his concurrence obtained

¹ This list of contractors was subsequently entered in the record as "Exhibit No. 38" and is on file with the committee.

as to the concern selected and the amount of the fee tentatively agreed upon.

The case is then submitted to the Quartermaster General and later to me, with a memorandum of the facts. The case is carefully examined in my office by qualified officers, and frequently also by Mr. M. J. Madigan, a distinguished civilian engineer on duty in my office, who discuss the case with me. The final step is my approval as Under Secretary of War.

In several instances concerns which have done outstanding work on one project have been selected for another project. The award of more than one job to a concern runs counter to the principle of spreading the work. But where a concern has gained experience, has shown unusual efficiency on the first job and has its force ready to go to work on another job, there is reason to believe that money and time will be saved by awarding it the second job. I believe that this point overcomes the argument on the other side. We do not have a fixed rule on this; each case is examined on its merits.

The fixed fee, I point out, is always a set sum of money and remains fixed, whatever the cost may ultimately prove to be.

The CHAIRMAN. How do you arrive at that fixed fee in the first place?

Mr. PATTERSON. It must not exceed 6 percent of the estimated cost in building contracts for building at military costs, so they have the estimated cost first. Then they have this maximum, and then they arrive at the fixed fee by bargaining with the contractor. They also have a scale that was laid down by a construction advisory group in the National Defense Advisory Commission, which recommended a scale of fees for building contracts, ranging from 6 percent on a very small contract, down to 2 percent in very large contracts; and our fees have adhered very closely to the curve indicated in that chart prepared by the construction advisory group in the National Defense Advisory Commission.

The CHAIRMAN. You arrive, then, at an estimated cost and fix a fee on that estimated cost?

Mr. PATTERSON. Yes, sir.

The CHAIRMAN. Then no matter what the job may eventually cost, that fixed fee is adhered to?

Mr. PATTERSON. Yes, sir; and the first yardstick, I think, Senator Truman, is the estimated cost.

If this construction report by the Quartermaster Corps was given out this morning——¹

The CHAIRMAN (interposing). Yes; it was.

Mr. PATTERSON. The chart or curve that I have just referred to appears there on page 111.¹ Now, the black line is the recommended curve which you will see starts at 6 percent and goes down to 2½ percent, and the dots along that are the actual fees, the fixed fees set by the War Department contracts.

In the graph on the lower part of the page is a similar curve referring to recommended fees for architect engineers, and that you will see ranges from 4 percent on small jobs down to less than 1 percent on the larger jobs.

¹ Mr. Patterson refers to Construction Progress Report No. 15. Report No. 16 was subsequently entered in the record as Exhibit No. 32, in which the chart in question appears on p. 109.

Senator BREWSTER. Are you satisfied that none of these concerns can make legal claims against the Government for increase in those fees where costs greatly increase?

Mr. PATTERSON. I am satisfied there will be no basis for such a claim.

Senator BREWSTER. On a case where I looked into it the contractor was extremely confident that he was going to double or treble his fees. I didn't look at the contract at all.

Mr. PATTERSON. I would like to see him do it. The contract doesn't mention a percentage anywhere in it. He agree to do the work for \$50,000.

Senator BREWSTER. Does it mention the estimated cost?

Mr. PATTERSON. Yes.

Senator BREWSTER. Would you consider that had any implications?

Mr. PATTERSON. No.

Mr. FULTON. Does the contract?

Mr. PATTERSON. I would rather be on the Government's side in that argument than on his side.

Senator BREWSTER. I would, too.

Mr. FULTON. Does the contract provide that in the event the estimate is exceeded he may apply for an enlargement of the fee if the work is greater than had been contemplated?

Mr. PATTERSON. No; he may get money in addition to that fixed fee only by doing extra work. That is to say, if we order him to build 10 more buildings than the number fixed in the original contract, of course, we have to agree to an extra fee on that, and that is what we do.

Senator BREWSTER. Does that happen in many instances?

Mr. PATTERSON. Oh, yes. In many camps the project has been greatly enlarged. A great many of these camps were originally indicated for 20,000 men; instead of that they will have 35,000 men in the camp. That requires an additional contract with either that contractor or some other contractor, and it is commonly with the first contractor, and, of course, he will get an extra fee on that. That is also a fixed fee. The mere fact that the estimates have been low, as they were low, I can't see how that would entitle him to any more money at all.

Senator BREWSTER. Were the contracts pretty specific about what construction was involved?

Mr. PATTERSON. Yes; the number of buildings, and all of that.

Senator BREWSTER. And plans?

Mr. PATTERSON. Oh, yes; the buildings. The plans and specifications for the different buildings were right there before the contractor when he took the contract.

Senator BREWSTER. I thought in many cases they were not.

Mr. PATTERSON. I don't see any basis for such a claim, Senator Brewster, for this reason: If there were such a claim, that would take you right back into the cost-plus-percentage contract.

Senator BREWSTER. Yes.

Mr. PATTERSON. Which Congress specifically forbade; last June when the Congress authorized the cost-plus-fixed-fee contract, they specifically discountenanced the cost-plus-percentage contract. I should say that a claim by the contractor for additional compensation just because, as it worked out, the fee was, say, only 1 percent of actual cost, but 3 percent of estimated cost; it would get you

right back into the cost-plus-percentage basis, which would have been unlawful for us to make.

Senator BREWSTER. These typical contracts you have filed here, or forms, cover the provision that is used in relation to those fixed fees, do they? ¹

Mr. PATTERSON. The first one there is a regular cost-plus-fixed-fee contract. Of course, we have a good many others. The first one would be a good model of that, I think.

Senator BREWSTER. What do these fellows give for a fixed fee?

Mr. PATTERSON. What?

Senator BREWSTER. What do they furnish for the fixed fee?

Mr. PATTERSON. Management.

Senator BREWSTER. And what did that consist of?

Mr. PATTERSON. The know-how.

Senator BREWSTER. How many men, for instance?

Mr. PATTERSON. Oh, it is the top men in the concern.

Senator BREWSTER. How many, for instance?

Mr. PATTERSON. General Somervell will have to tell you that in more detail than I can, but I think it is agreed that, for instance, the top men who are actually working on that job and whose salaries are charged as part of the cost, can only get so much money, and if they want to pay them more it has to come out of the fixed fee. Quite frequently it does come out of the fixed fee.

The CHAIRMAN. Mr. Secretary, would it be more specific for you to finish your statement and then answer questions, or do you object to being asked the questions?

Mr. PATTERSON. Not in the least, but I think the answers to some of these questions will come in the next few pages.

The CHAIRMAN. Mr. Secretary, if you will be seated here, we will proceed with your examination, and then you may leave if you so desire.

I think Mr. Brewster was questioning and he may proceed.

TESTIMONY OF HENRY L. STIMSON, SECRETARY OF WAR—Resumed

FUNCTIONS OF THE ADVISORY COMMISSION TO THE COUNCIL OF NATIONAL DEFENSE

Secretary STIMSON. Unlike most people, I found it rather easier to get into the White House than to get out.

Senator BREWSTER. As I indicated this morning, Mr. Secretary, I am greatly interested in your opinion on the organization for carrying out the effort in which we are engaged, both on account of your long experience and your experience in private industry as well. The report of the industrial mobilization plan, under the revision of 1939, which represented, as I understand, the result of the studies of the General Staff of the War Department based on the experience of the last war and the 20 years which had elapsed, the study of the industrial situation and changing conditions, made very definite recommendations about the War Resources Administration, as it was called.

The last revision was under date of 1939. I assume you are familiar with that report as coming within the cognizance of your Department.

¹ Exhibit No. 2.

Following that there was the Stettinius report, about which we have heard a great deal, but which we have never been privileged to see, which was supposed to be directed to this same question. Now, under the organization which has been carried out, largely by Executive order, a considerably different situation is apparently presented, and I would appreciate your comment on that situation from the standpoint of your responsibilities.

Secretary STIMSON. Well, Senator, I had nothing to do with the enactment of the law, except as any private citizen watching it, and I had nothing to do with any responsibility of administration until, as I told you this morning, the 9th of last July. I am sure you will recognize that, being as I am no longer a private citizen but a member of an executive team, there may be an inappropriateness about theoretical speculation about matters which I happen to be working in. I recognize that you are asking a fair question, and a proper one so far as my own personal observation and office are concerned, and I am quite ready to answer that.

When I came here there had been created an Advisory Council of Defense, composed of seven individuals.

Senator BREWSTER. What was the precise title of that? I think we will have to be precise in order to get this.

Under Secretary PATTERSON. Advisory Commission to the Council of National Defense.

Senator BREWSTER. Commonly known as the National Defense Advisory Commission?

Under Secretary PATTERSON. Yes.

Secretary STIMSON. I have heard it called a great many things. The important word in the title is the word "advisory." The functions of the members of that Commission were limited to advisory functions, except where certain statutes passed by the Congress and possible Executive orders—though I don't recall whether there were any Executive orders—giving them certain powers of veto.

Senator BREWSTER. Was that not a statutory body?

Secretary STIMSON. No.

Senator BREWSTER. I think you will find it was.

Secretary STIMSON. That shows that you picked out a very poor expert.

Senator BREWSTER. I think it has considerable to do with the evolution of this whole thing.

Secretary STIMSON. I am perfectly familiar with the fact that there was originally what was called the Council of National Defense, composed of Cabinet officers. That was a wholly different thing.

Senator BREWSTER. Well, that is under the same provision of the statute.

Secretary STIMSON. It is a wholly different thing from this Advisory Commission.

Senator BREWSTER. Very true.

Secretary STIMSON. And whether or not the latter had any roots in legislation, I don't know, but I found it in operation. As I recall it, none of its members possessed any administrative functions in regard to production. They were all in the nature of negative functions, of veto, and in the comparatively short time which I have had occasion to watch its operation, I thought it was subject to a good deal of delays.

If I am not mistaken the approval of every one of the seven was required, for instance, for the choice of sites. Am I right, Mr. Under Secretary? Correct me if I am wrong.

Under Secretary PATTERSON. They did not admit that, but practically, I think you are right.

Secretary STIMSON. But at any rate, they exercised the approval of that, and the Congress had given them certain other functions of a negative character, that is, approval.

Senator BREWSTER. Those were in the appropriation act?

Secretary STIMSON. In the appropriation act.

Senator BREWSTER. They would provide that they must approve certain of these things?

Secretary STIMSON. All I want to say is that my observation was that what I thought was the failure to give and concentrate administrative functions into any one of them in regard to production was productive of delay and of lack of push in the productive plant.

Senator BREWSTER. May I get that clear at that point? This is now July 1940, when you took over and found this in existence?

Secretary STIMSON. Yes; but I lived with it for several months after that.

Senator BREWSTER. And was it not true at that time that there were four bodies, or individuals, each of whom possessed a negative on the other? The National Defense Council, composed of the Secretaries, had certain responsibilities.

Secretary STIMSON. Which never met.

Senator BREWSTER. Second, the National Defense Advisory Commission, which was given certain veto powers. Third, the precise agency with which we are concerned, of which you are one, from the War Department. And fourth, the President himself. So, to start the program going, as you found it, it might require the action of four distinct agencies if all of the contemplated provisions of the law were carried out.

Secretary STIMSON. Well, any affirmative policy would certainly require the approval of the last agency.

Senator BREWSTER. You speak of policy. I am speaking now of execution of policy, which is an administrative agency, and I assume that certainly the President does have limits even to his omnipotence and omniscience, and he must entrust responsibilities to some individuals, like yourself.

Secretary STIMSON. Just note that I haven't used either of those words.

Senator BREWSTER. I didn't know exactly what you meant by your comment that certainly the President's approval was required.

Secretary STIMSON. Well, all I mean is the very simple fact that all acts of executive officers of the executive branch of the Government, particularly in procurement, are acts within the general supervisory powers of the President.

Senator BREWSTER. Yes; but that is very distinct from the administrative responsibilities.

Secretary STIMSON. I would like to finish my sentence, and I will make it very brief. I have said that the delays which I observed came, I thought, largely from the fact that the administrative function was not focused upon any one individual.

Senator BREWSTER. Yes.

Secretary STIMSON. And consequently, I supported very warmly the creation of what is now known as the Office of Production Management, which in operation has caused such administrative functions to be practically concentrated in the Director of the O. P. M., Mr. Knudsen. It is true that his administrative power is subject to review by the Board, composed of the four, but as a matter of operation (and it was quite fully anticipated by us all) Mr. Knox and I confine ourselves to matters of broad policy, and Mr. Hillman, who is Associate Director, has already shown by that point great skill and tact in the exercise of his function of representing labor. As a consequence of that, the O. P. M. was operated with Mr. Knudsen virtually exercising administrative powers, and as I look back on the time since it has been created, I know of no delays which have been caused by divisions or conflicts of viewpoint between the four members of the so-called O. P. M. On the contrary, I recall many cases where the conference of that Board actuated, or worked out, to give a ripper wisdom to the action and the policy than it would have been if it had not been there.

In other words, Mr. Brewster, I think that it has worked very well.

Senator BREWSTER. That is created by Executive order, is it?

Secretary STIMSON. It is.

Senator BREWSTER. And you indicated in the first part of your comment on it that the functions of yourself and Secretary Knox were largely advisory.

Secretary STIMSON. No; I didn't say that. We all have votes in that, but Mr. Knox and I have confined ourselves to our acting on matters of broad policy, leaving the routine administration to Mr. Knudsen.

Senator BREWSTER. Well, do you consider this as a policy-making body or as an executive agency, or as an administrative body?

Secretary STIMSON. I think it functions more generally as an administrative body, but in the course of that function, as well as happens in practically all such bodies, questions of policy come up.

Senator BREWSTER. But where do you find, either in your business experience or in your Government experience, in the lessons of the last war or the studies since, any suggestion that administrative responsibilities should not be centered in one man?

Secretary STIMSON. You are asking me a pretty broad question.

Senator BREWSTER. That gives you great opportunity.

Secretary STIMSON. I didn't mean to give you the impression that either Knox or I used administrative functions.

Senator BREWSTER. Nor Mr. Hillman?

Secretary STIMSON. Perhaps I spoke too quickly in saying that our actions had not been advisory. They usually were, but nevertheless we had the voting power to overrule, although we have never used it.

Senator BREWSTER. You did not find the National Defense Advisory Commission effective because it was divided into seven parts, and you now have reduced it to four parts. I still feel that the responsibility must be centered.

Secretary STIMSON. On that point I certainly don't intend to prevent you from exercising your freedom of voice.

Senator BREWSTER. Do you mean to say that you are entirely contented with the present arrangement, Mr. Stimson?

Secretary STIMSON. So far—

Senator BREWSTER (continuing). Although you can cite no precedent in any studies of this subject which ever indicated the wisdom of such an arrangement, and you now admit that you and Secretary Knox are only advisory, not administrative, that you are members of an administrative four-headed body responsible for what is done, although you don't exercise your responsibility.

Secretary STIMSON. Practically everything you have said is a distortion of what I have said, Senator. I said we have not exercised it thus far.

Senator BREWSTER. You first said you were not advisory, and then you said you were advisory. Now which are you, advisory or not?

Secretary STIMSON. I will tell you what we are. In the sense that we have an equal vote with everyone else, we have administrative power. In the sense that we have not used it so far except to advise our colleague, who has the immediate burden of routine administration, we have thus far acted in an advisory capacity.

Senator BREWSTER. And out of the wealth of your experience, you see no reason why a four-man administrative board should not be equal to the very tremendous task with which we are now faced?

Secretary STIMSON. Mr. Brewster, I am trying to answer you fairly in every way. Remember this: This Board has been acting thus far in time of peace, not under the spur of war. I do not say that a time might now come under the spur of war where the functions might have to be concentrated further for the purpose of greater speed, but that is always a matter of very great caution in democratic government in taking such a step. I say in this case I have not seen any reason yet in our record so far for taking that long, warlike step.

Senator BREWSTER. You are one of those who has felt very strongly about the crisis with which we are faced?

Secretary STIMSON. I have.

Senator BREWSTER. You have felt that certainly it was as serious as any we have known in our history, short of actual participation in war?

Secretary STIMSON. I think so.

Senator BREWSTER. Well, I didn't mean by the force of any of my questions to challenge your conclusions, but I have felt that the report of your Department, which I have here, coupled with the Stettinius report, insofar as we have been privileged to know as to its contents, was very much in conflict with the actual system that is now in operation, and I felt for that reason that your opinion in the matter was of the first moment.

Secretary STIMSON. I should like to have an opportunity to read what you have so lightly alluded to as something that I know very thoroughly. If I am not mistaken, the Board's powers were aimed at a time of war, were they not?

Under Secretary PATTERSON. Aimed at a time of war.

Senator BREWSTER. Do you mean to draw your distinction, then, on that?

Secretary STIMSON. I assert that; yes. I think I said very frankly that I could conceive of the situation arising where war power might perhaps be wisely used to have further concentration and that where time was so essential, even the quick power of concentration which we

have given to Mr. Knudsen might not be quick enough. But I don't think that that time has quite come yet.

Senator BREWSTER. I am glad to find one situation where, I think, many Members of the Congress feel even more strongly than you as to the critical character of the condition. While the enemy isn't actually hammering at our shores yet—

Secretary STIMSON (interposing). You don't feel any more keenly than I do about that.

Senator BREWSTER. I don't see how we could be in a more critical situation, and I think that as you contemplate it, you may not want to rest your distinction of the situation on the fact that it is not sufficiently serious.

Secretary STIMSON. I don't rest it entirely on that.

Senator BREWSTER. I should hesitate on that score, sir.

Secretary STIMSON. I don't think that is quite what I said. You have to think of the people whom you represent before you go on to war powers. You can't do it without that in a democracy.

Senator BREWSTER. Does the Office of Production Management handle the question of priorities?

Secretary STIMSON. What is that, sir?

Senator BREWSTER. Does the Office of Production Management handle the question of priorities?

Secretary STIMSON. It does, through one of its subordinates, coming up to the Board.

Senator BREWSTER. That is one of their subordinate agencies?

Secretary STIMSON. Yes, sir.

Senator BREWSTER. And would the situation be simplified if your Under Secretary, responsible for management, occupied your position on the Board? Would that tend to concentrate the administrative responsibility?

Secretary STIMSON. Well, it might make the function of one-quarter of it more intelligent.

Senator BREWSTER. I asked that question because you pointed out the extent to which procurement was the primary responsibility of the Under Secretary.

Secretary STIMSON. Yes.

Senator BREWSTER. Which means that many of these matters with which you said this morning you were not familiar, which would come before the Office of Production Management, which is the final agency, must be cleared through the head of both Judge Patterson and yourself. I didn't mean to enter into any comparison of your relative merits.

Secretary STIMSON. Let me answer that by frankly saying the operation of the O. P. M. has not been rigid. I know that Judge Patterson very often attends meetings with me so that we can have right at hand his viewpoint.

Senator BREWSTER. Yes.

Secretary STIMSON. And the whole purpose of the operation of that body has been to avoid rigidity and formalism and to try to have it get at the essentials of good administration and speed.

Senator BREWSTER. Yes.

Secretary STIMSON. That is why I say that I don't see just as present yet the need for any concentration in a sole head or that it would

get ahead any faster than Mr. Knudsen has been getting ahead, aided by the rest of us.

Senator BREWSTER. You spoke of the fact that your Department had been given the responsibility of supplying the Allies with a substantial portion under the Lease Lend Act.¹ That was by Executive order, was it?

Secretary STIMSON. Oh, I think that is in the statute itself. The Lease Lend Act says that the President, through the Secretary of War or the Secretary of the Navy, may do so and so.

Senator BREWSTER. There are certain portions of the \$7,000,000,000 fund that were allocated to specific departments, with certain latitude. Is that what you referred to?

Secretary STIMSON. More than that. The whole statute itself puts the power on the President, acting through the Secretary of War or the Secretary of the Navy, or other agencies as he may select, to carry out all of the steps, as I recall the act.

Senator BREWSTER. Yes. But I was inquiring as to the specific allocation of responsibility. The President had the discretion to select his agency, and under the seven billion appropriation we allocated certain funds to different departments with certain latitude, and I wanted to know whether it was to that statutory provision that you referred or whether there had been an Executive order covering it.

Secretary STIMSON. Oh, no; I was referring to the Lease Lend Act itself.

Senator BREWSTER. And the appropriation that was made under it?

Secretary STIMSON. No; the act itself—the very Lease Lend Act itself—uses the words that I just quoted in regard to the performance of the acts which that statute makes possible. It says it shall be done by the President, acting through the Secretary of War or the Secretary of the Navy or such other agency as he may select.

Senator BREWSTER. The reason I was so specific, as I recall your language, you are given the responsibility of supplying the Allies. I happen to be one of those who earnestly urged that you should be given that very responsibility, but under the modified amendment you were only permitted to advise; you will recall the controversy on that point. Some of us thought you and the Secretary of the Navy should have a veto on the release of equipment. That provision was not contained in the bill, as I recall.

Secretary STIMSON. I confess I wasn't present at the debate, so that I wasn't familiar with that.

Senator BREWSTER. You remember it was before there had been a provision that you must be consulted on the release of material; but under the last act, the administration, those in control, didn't feel it wise to have that provision, although a great many of us had the confidence in you, Mr. Secretary, to wish that you were exercising that responsibility.

Secretary STIMSON. I am flattered by your confidence, but I don't think it would have been constitutional.

The CHAIRMAN. Senator Ball has to catch a train, and he wants to ask a question or two before he leaves. I will give him that privilege.

Senator BALL. I got the impression in your statement regarding purchasing supplies for the Allies that you were talking about new

¹Public Law 11, 77th Cong., 1st sess., an act to promote the defense of the United States.

orders rather than present equipment that was transferred under the billion three hundred limitation.

Secretary STIMSON. Yes; I was. The former—that is, the transfer of previous equipment in the past—of course, came under our Department.

Senator BALL. Oh, sure; that would. I was wondering, in ordering these new munitions for the Allies, whether an effort is being made in the specifications so that that equipment, if it became necessary, could be used by our own forces, all of it. We are ordering guns and airplanes for them. They could be transferred and used by our own Army?

Secretary STIMSON. The title to those articles does not pass until they are completed, and consequently that is quite a long way off. That was one of the main benefits of the bill, that when the time came for the actual delivery of these weapons their diversion and the consignee should be chosen with reference to the needs of the present moment rather than 2 years ahead.

Senator BALL. And if it so happens that we need them more for our own forces?

Secretary STIMSON. We certainly would have the power.

Senator BALL. They would fit our requirements?

Secretary STIMSON. Yes. That is true of the enormous majority of the classes of weapons. There are only a few, very few types of weapons that have been contemplated in any of the discussions that have taken place which are what you could call peculiarly foreign weapons.

Senator BALL. Yes; that is what I mean.

Secretary STIMSON. That has been one of the benefits that has come from the discussions of the past 7 or 8 months, since the other governments have been sending over representatives here who have consulted with our supply officers, particularly the British who, of course, have been the larger persons interested, of the foreign governments. That has resulted in an agreement on standardization which is to the great benefit of all of the parties concerned, including ourselves. Of course, the great bulk of giving up those particular types has been by the other people. I should say—I can't give it to you in percent, but it must be as much as 90 percent of the types of weapons which have been discussed are American types.

Senator BALL. And, Mr. Secretary, this morning in your statement you said that in 1917-18 it would have taken at the rate of production then about 2½ years to fully munition the Army, and then you said that today, assuming existing priorities are not altered, we shall, in spite of the greater complexity of modern weapons, do the job from 8 months to 1 year faster than we were doing it then.

Secretary STIMSON. That was the estimate given me by the Chief of Ordnance, who was one of the prominent members of the Bureau of Ordnance in the last war.

Senator BALL. Well, doing a little subtracting, then, that would mean that we have an Army in training now, but that Army of a million four hundred thousand men will not be completely equipped as a combat Army for at least a year, and certainly couldn't be sent over to Europe as an expeditionary force.

Secretary STIMSON. No; not quite. I wouldn't say that—I mean over to Europe as an expeditionary force. This subject I didn't take

up at all in my talk this morning. Although we have been making these plans for certain of the new weapons, particularly, for example, our new field gun, 105 howitzer, and certain others, we have in our possession all of the basic weapons necessary to equip that force in the stocks which we have fortunately and providently kept in the possession of this country ever since the termination of the last war. For instance, this new howitzer is just coming into production, and it will not be produced in quantities large enough to equip the entire Army until sometime next winter or thereabouts, possibly next spring, but we have in our possession in our stocks enough of the 75 field guns that we fought with in 1917 and '18, speeded up, so to speak, by putting on pneumatic wheels and tires, to equip double the number of men that we have yet been authorized to create.

As all those who had the fortune to serve in the artillery in the last war know, that was a magnificent weapon, although we think we are now making a better one. Take the heavy howitzer, the 155 howitzer, we have enough of that to equip far more, I think more than twice the number of men that we are authorized to raise now; and so on, so that we are not stripped. We have the basic weapons, and although we hope to have even better ones before the time comes, if it does come, at which it will be necessary for us to have troops that use them, we would not be helpless now at all.

Senator BALL. I knew that, but the point I was trying to make was that we wouldn't have an Army equipped with tanks and all the rest of it.

Secretary STIMSON. The tanks are a different matter. The tanks are coming on very much more rapidly.

Senator BALL. But they are not equipped in the modern way.

Secretary STIMSON. Yes; they are; excuse me; the tanks that we are making now are equipped with the last word of the experiences of the present war.

Senator BALL. And they are now turning out sufficient of them?

Secretary STIMSON. They are coming out rapidly now.

The CHAIRMAN. Proceed, Mr. Brewster.

Senator BREWSTER. The Army, for obvious reasons, has pursued a different policy than the Navy in the matter of its manufacture, as you only manufacture, or have hitherto only manufactured, about 10 percent of our ordnance, while the navy yards under their construction program have about half and half. That has been the policy.

Secretary STIMSON. Don't call it the Army's policy, please; it is the Congress's policy.

Senator BREWSTER. I would like to know what your view would be as the Secretary of War as to what our policy should be in that respect at this time.

Secretary STIMSON. I said in the very beginning, if you remember what I called your attention to this morning, that it has never been the policy of this country to have a large standing Army——

Senator BREWSTER. Yes.

Secretary STIMSON. Already prepared for a big war. It has been the invariable policy or habit of this country in time of peace, as soon as peace came, to demobilize the Army and get its strength down to a very skeleton force. That hasn't been the act of the Army, that has been the act of the people of the United States acting through their representatives in Congress, in cutting off all appropriations for a

large Army as soon as peace came. It is a matter of national policy in which the Congress has properly and naturally followed out, I think, very accurately the wishes of the people.

Senator BREWSTER. Well, I am addressing myself to the question of procurement, now, of these materials for ordnance—airplanes, tanks—as to whether you would feel at this time any change in the emphasis was advisable as between private or public manufacture.

Secretary STIMSON. Do you mean that we should adopt the public manufacture of airplanes at the present time?

Senator BREWSTER. I am asking you.

Secretary STIMSON. I don't think it would be possible, that is and ever be ready within 2 or 3 years of the time we will otherwise be. Senator, are you serious in asking that question? Do you think that you could make grow over night some mushroom companies, out of nothing, to build airplanes as well as the Boeings or the Consolidated can do it, or that Douglas can do it?

Senator BREWSTER. The reason I asked that question is that repeatedly in the last month I have been asked with very great solicitude by various private manufacturers as to whether a comprehensive plan for the public manufacture of our entire aircraft industry was not under contemplation within your department, and it has been attributed more especially to your chief assistant, the Under Secretary; I have never asked him about it, because I felt this was the time, but I do at the time want to know your ideas about it.

Secretary STIMSON. You had better ask him first whether he has ever had any such idea. If he has, he hasn't confided it to me.

Senator BREWSTER. That covers it as far as you are concerned. You see no reason whatsoever why we should contemplate any such program at the time?

Secretary STIMSON. I see the one complete and substantial reason why we should not, that we couldn't do it and get anything done in time.

Senator BREWSTER. I am glad to hear that.

Secretary STIMSON. We have, of course, done everything that we could to expand the existing organizations of private manufacturers. Don't misunderstand me on that.

Senator BREWSTER. Yes; I understand that thoroughly.

Secretary STIMSON. We have felt that the only way that we could expand it was through the people who had already made it famous, by spreading out their forces and bringing in the resources of the Government to furnish them with new plants and help them to gather skilled labor, but doing it as a part of the existing organization, so far as we could get their help in this matter.

Senator BREWSTER. Then you feel that that phase of our procurement is working as satisfactorily as you could anticipate?

Secretary STIMSON. I think it is working necessarily slowly.

Senator BREWSTER. Yes; I realize that.

Secretary STIMSON. Necessarily so, but I think it is working as fast as it can be made to work with all of the pushing and pressure that we have been able to put on it.

Senator BREWSTER. I appreciate the frankness with which you have replied, and I hope that you appreciate that we must have certain aspects of the devil's advocate here.

Secretary STIMSON. Of course, this problem that you have been asking me about is really the problem of expansion of industry; since the creation of O. P. M. it is the problem of Mr. Knudsen, aided, so far as he can be, by his associates in the Board, but there has been no difference of opinion, so far as I know, on the general method which should be adopted. Before you had spoken I had never heard of the suggestion that we should start now to found new aircraft industry.

The CHAIRMAN. Mr. Secretary, I was very much interested in your statement this morning, and you repeated it again this afternoon, about the speed with which the present program is being carried out. You made the statement that it was 6 months to a year quicker. The facts are that in the last war we didn't furnish any artillery to ourselves or anybody else except in the last days of the war. Isn't that true? I think you said 143.

Secretary STIMSON. One hundred forty-three guns out of the 10,000 that were ordered.

The CHAIRMAN. Were sent to Europe. Is it your opinion that the French 75 is still as good a field weapon as it ever was?

Secretary STIMSON. No; I think it is a very good weapon, but we wouldn't be building the 105 if we didn't think we could improve on it a little.

The CHAIRMAN. That is true. But the 75 is still as good a field weapon as is at present in the war?

Secretary STIMSON. Those of us in the artillery feel that that was the best weapon on the field in the last war.

The CHAIRMAN. I commanded a battery of them. That is the reason I asked the question.

This morning you handed us a chart on the schedules of various contracts, those behind schedule, those on schedule, those ahead of schedule, and those completed.¹

Secretary STIMSON. Do you want to ask me questions from that?

The CHAIRMAN. No; I do not want to ask you questions about that chart at all. I want to ask you if it is possible to furnish us with information with regard to costs on these schedules similar to this chart on which we could have before us a showing as to how these contracts stayed within the estimated costs, and how much they had exceeded the costs on the same basis as this chart shows here their completion.² Would that be possible?

Secretary STIMSON. I can show you the figures very quickly. It doesn't need a chart.

The CHAIRMAN. If you have those figures and can call them to our attention, that is all right. I just want to bring them out for the record.

The facts in the case are that under present conditions they are reversed somewhat from what they were in '17 and '18. Isn't that true? In other words, in '17 and '18 the Allies furnished us and now we are furnishing them.

Secretary STIMSON. That is one of the principal troubles.

The CHAIRMAN. And that is one of the things that is, to some extent, delaying our own preparation with modern weapons.

Secretary STIMSON. It is only slightly. We have been going ahead with our own and have been held back only in cases where we felt per-

¹ See Exhibit No. 1, supra, p. 8.

² Submitted by the War Department on May 29, 1941, and included in the appendix on p. 373.

fectly safe to give the people who are on the firing line the first whack at certain weapons.

The CHAIRMAN. In other words, we have not really crippled ourselves by it.

Secretary STIMSON. We haven't crippled ourselves at all.

The CHAIRMAN. Mr. Fulton, have you any questions?

Mr. FULTON. I have no questions to ask the Secretary at this time, but I do wish to take this opportunity to express my appreciation and that of the committee for the courtesy with which the various Army officers whom I have contacted have received my rather numerous requests for specific information.

Secretary STIMSON. That certainly makes my heart glad to hear you say that because those men have been facing a very thankless task in an emergency which threw on them tremendous pressure and a situation where they were likely to be criticized and have been criticized by people who didn't realize the magnificent job they were doing.

Mr. FULTON. Yes; I regret that I do have to ask for the compilation of so much data as I am asking for, but I do appreciate the courtesy that they are approaching it with and the speed with which they are trying to get it for us.

Secretary STIMSON. Thank you, sir.

The CHAIRMAN. Mr. Under Secretary, would it an inconvenience to you to continue your statement in the morning at 10:30?

Mr. PATTERSON. That is all right; sir.

The CHAIRMAN. If that is entirely satisfactory, the committee will recess until 10:30 tomorrow morning.

(Whereupon at 3:50 p. m., a recess was taken until Wednesday, April 16, 1941, at 10:30 a. m.)

INVESTIGATION OF NATIONAL DEFENSE PROGRAM

WEDNESDAY, APRIL 16, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE TO INVESTIGATE
THE NATIONAL DEFENSE PROGRAM,
Washington, D. C.

The committee met at 10:30 o'clock a. m., pursuant to recess on Tuesday, April 15, 1941, in room 318, Senate Office Building, Senator Harry S. Truman, presiding.

Present: Senators Harry S. Truman (chairman), Mon C. Wallgren, Carl Hatch, Joseph H. Ball, Ralph O. Brewster.

Also present: Hugh A. Fulton, chief counsel, Charles P. Clark, associate chief counsel.

TESTIMONY OF HON. ROBERT P. PATTERSON, UNDER SECRETARY OF WAR—Resumed

SELECTION OF CONSTRUCTION CONTRACTORS

The CHAIRMAN. The committee will come to order.

The Under Secretary will proceed with his statement.

Mr. PATTERSON. Mr. Chairman and Senators, I had gotten to the point in my address where I was discussing the fixed fee.

The CHAIRMAN. You were discussing the fixed fee when the Secretary came in.

Mr. PATTERSON. I will just travel back one or two sentences to get the sense of it.

The fixed fee is always a set sum of money and remains fixed, whatever the cost may ultimately prove to be. By law it may not exceed 6 percent of estimated cost on contracts for building construction at military posts. In practice the fixed fees under construction contracts range from 6 percent of estimated cost of construction in small contracts to 2 percent in large contracts. The average fee in camp construction has been 3.2 percent of estimated cost. These fees adhere closely to a schedule of fees recommended by a committee on construction under the National Defense Advisory Commission.

The procedure has been the same in selection of architects and engineers for camp construction. Here also the fixed fee is a specified sum of money. Most of the fees have been for sums less than 1 percent of estimated cost. The average fee paid to architect-engineers has been three-fourths of 1 percent of estimated cost of construction.

The Quartermaster Construction Report, which I handed up yesterday, includes charts showing fees for contractors and for archi-

fects-engineers under the construction contracts.¹ That was on page 110, I believe, in the report that was handed up to the committee yesterday.¹

The fees have been low in relation to estimated cost. The average is far below the permissible limits fixed by Congress. They are even lower in relation to actual cost. I digress here to explain why actual costs of camp construction have been higher than original estimates. Six hundred and nine million dollars was initially appropriated for cantonment construction, and revised cost estimates made in January 1941, indicated that an additional \$338,000,000 was needed for completion of the projects. Increased labor and materials costs accounted for roughly one-third of the excess over original estimates. The remainder was due to increase in size of projects, improvements in the projects originally planned, and inaccuracy in the original estimates. The inaccuracy in original estimates came about through incomplete engineering data at the time they were prepared. General Marshall testified in September on the original estimates that the Army was by no means certain that the requested funds would be sufficient. Most of the estimates were made without engineering surveys and prior to the selection of sites, and were based upon a sum per man cost for building small posts in 1939 and 1940. The construction program could not be commenced in the season favorable for building operations. It had to be carried on in winter weather. In addition, changes were made in plans, increased facilities were added, and improvements such as painting the buildings were made. These were factors that contributed to increase costs over original estimates. Other witnesses can furnish more detailed descriptions.

There has been criticism of the selection of contractors for camp construction. Criticism, I take it, is inevitable where competition is not present in the selection. With 4,200 contractors applying for jobs, only a small number can be successful. Careful scrutiny has convinced me, however, that the system which has been followed provides safeguards against selection of incompetent contractors, that selections have been honestly and capably made, and that personal favor or political influence has played no part in the choice of contractors. The concerns that have done the building have shown themselves in most instances to be skillful and competent. I am, of course, not prepared to say that no mistakes have been made.

Senator BREWSTER. Do you take up later your recommending board, somewhere in your statement?

Mr. PATTERSON. I have already covered that, Senator Brewster. I covered that yesterday. I can discuss it again.

Senator BREWSTER. We can wait until the conclusion, perhaps.

Mr. PATTERSON. Very well.

Under the system which I have outlined, the Quartermaster Corps has placed contracts for troop housing estimated to cost over \$900,000,000, and such was the vigor with which the program was pushed that the bulk of the projects had been contracted for by the end of November 1940.

¹ Mr. Patterson refers to Construction Progress Report No. 15. Report No. 16 was subsequently entered in the record as Exhibit No. 32, in which the charts mentioned appear on p. 109.

The Corps of Engineers, as I have already said, supervises construction work at Air Corps stations and on the Atlantic island bases. For Air Corps work, the district engineer in the locality procures competitive bids where the time permits. In other cases, where a fixed fee contract is made, the district engineer or, in certain cases, the division engineer, the division being larger than the district, submits the names of several concerns as qualified, rating them according to his opinion of their fitness. The chief of construction of the Corps of Engineers, that is General Robbins, after clearing with Mr. Harrison of the Office of Production Management and consulting with the Construction Advisory Board in the Quartermaster Corps, selects the contractor believed to be the most competent for the work and makes a tentative agreement as to fixed fee and other details. The case is then sent to my office where it is examined and submitted to me for approval.

We hold no brief for the cost-plus-fixed-fee plan for building camps. We use it when pressed for time, which was doubtless the use contemplated by Congress last June in authorizing such contracts. Under the Fourth Supplemental Appropriation Act, \$15,000,000 has been allowed for engineering survey and lay-out of future camps. We are now retaining architect-engineers to make surveys, lay-outs, and detailed plans for 28 additional camp sites. This work will take 3 months and is estimated to cost \$15,000,000. But if the need for camps comes, the building contracts can be let on competitive bids and far more than \$15,000,000 should be saved.

SELECTION OF CONTRACTORS IN THE PLANT PROGRAM

Mr. PATTERSON. The discussion up to this point, the last few minutes, has been with regard to troop shelter, camp construction, and I will pass now to the selection of contractors in the plant program, and thereby evidence, I think, to the committee why a different system has to be followed in that because of the interest of the supply service in the production that will be forthcoming from the munitions plant.

Under this program we are building powder plants, explosives, tank arsenals, gun factories, owned by the Government and operated by private companies. The projects are set by a board of officers appointed by the Assistant Secretary.

Senator BREWSTER. Excuse me, does that indicate the division of function between the Under Secretary and the Assistant Secretary?

Mr. PATTERSON. No. In this statement I have used the words interchangeably, and I have used them according to the office held by me at the time when the thing was done. It was done by the Assistant Secretary down until December 1940, and thereafter by the Under Secretary. It is the same man stalking around under a different title.

Senator BREWSTER. You don't have an Assistant Secretary?

Mr. PATTERSON. We have, just within the last week; Mr. McCloy.

Senator BREWSTER. That is what I was referring to. None of your statement applies to that office?

Mr. PATTERSON. No, sir.

Senator BREWSTER. It is a little confusing because of it.

The CHAIRMAN. Since the Assistant Secretary hasn't been on the job but a week, this will apply entirely to your position.

Mr. PATTERSON. Yes; that is right. I refer to it sometimes as Under Secretary, because at the time when a certain rule or order was made it was made by me as Under Secretary; then in other places this has reference to Assistant Secretary, because that Board was appointed last summer. It may be that under this I refer to Mr. Johnson, who was my predecessor as Assistant Secretary.

Senator BREWSTER. That has an aspect of futurity, but I understand it means from now on it will be yourself rather than the Assistant Secretary.

Mr. PATTERSON. I still have the procurement duties; unless some new arrangement is made it will continue as it was.

Sites are selected in the first instance by the supply service concerned, in most cases the Ordnance Department. The Ordnance Department, of course, has charge of powder plants, explosives, tanks, guns, and so forth. They are then submitted to the Site Location Board appointed by the Secretary, decisions of this board being subject to my approval. Under the appropriation acts passed in 1940, all projects and sites have been submitted to the National Defense Advisory Commission and, finally, to the President for approval. There is now a Plant Site Committee at the Office of Production Management.

Now, as to the selection of the contractors in the munitions-plant program, and here I am speaking only of the first of the three types I described yesterday, because under the emergency-plant facility contract and also the defense-plant contract, the contractor there, the commercial company or the industrial company, is responsible for the building, and we don't select the building contractors at all. But I am speaking of the first type, which is the straight Government-owned plant.

The supply service responsible for production of the munitions selects an industrial company to operate the plant and to act as management agent during construction. That service then consults with the Construction Division of the Quartermaster Corps, and the two together select the contractor to build the plant. The concern selected to operate the plant has frequently also been selected to build the plant; that is to say, they agree on the same concern. All selections have been subject to approval by me as well as by Mr. Knudsen or Mr. Nelson.

An example is the Elwood Ordnance Plant, which has been the subject of investigation by the House Military Affairs Committee. The Ordnance Department, with the approval of the Site Location Board, located a shell-loading plant near Wilmington, Ill. The site was approved by me, by the National Defense Advisory Commission, and by the President. The Ordnance Department, acting through Colonel Miles, selected Sanderson & Porter, an engineering concern of national reputation, to operate the plant.

Senator HATCH. Where were they from?

Mr. PATTERSON. New York City.

Senator HATCH. New York City?

Mr. PATTERSON. Yes, sir.

The Ordnance Department—Colonel Miles—then recommended to the Quartermaster Corps—General Hartman, of the Construction Division—that Sanderson & Porter also be given the contract to build the plant, and General Hartman adopted this recommendation.

The CHAIRMAN. General Hartman is no longer with the Department?

Mr. PATTERSON. General Somervell. General Hartman is with the Department, but he has another position. He is in charge of the replacement training center down at Camp Meade. But General Somervell has become Chief of the Construction Division. I think that change took effect late last fall.

After clearance of the selection of the contractor with Mr. Knudsen, a letter of intent in the usual form was signed by General Campbell, of the Ordnance Department, by General Wesson, Chief of Ordnance, and by me. Later the formal contract was executed, signed by General Hartman and the Quartermaster General in behalf of the Quartermaster Corps, by General Campbell and the Chief of Ordnance in behalf of the Ordnance Department, and by me. The contractors are ahead of schedule, and they are doing an excellent job.

The case has been criticized because Francis Blossom, a member of the firm of Sanderson & Porter, was a member of the Construction Advisory Board in the Quartermaster Corps. It is the fact that neither Mr. Blossom nor any other member of the Board on which he served had any part in the award of the contract to Sanderson & Porter or in recommending that firm for the project. They were selected at the instance of the Ordnance Department and, so far as I know, the Ordnance Department never heard of Mr. Blossom. After the criticism Mr. Blossom waived all profits in Sanderson & Porter for 1940 and 1941. I have given careful study to this matter, and I cannot find that the conduct of Mr. Blossom was in any way subject to censure.

Senator BREWSTER. Is he still with the Board?

Mr. PATTERSON. No, sir.

Senator BREWSTER. When did he retire?

Mr. PATTERSON. Two or three weeks ago.

Senator BREWSTER. And why?

Mr. PATTERSON. Ill health. He asked for a leave of absence, to come back, on account of ill health, but said that, if his place was needed on account of the work to be done, he was quite willing to have them take the request for a leave of absence as a request to be relieved, if they needed a man in the interim. The Board felt they did need a man in the interim, so they appointed a new man.

Senator BREWSTER. Do I understand from your statement that the competency of Sanderson & Porter as a contractor was not at any time referred to the Blossom board?

Mr. PATTERSON. Never.

Senator BREWSTER. How did that happen?

Mr. PATTERSON. It frequently happens in a case like this, where there was no selection to be made from among contractors. The department responsible for production when the plant is in operation, which is generally the Ordnance Department in a powder plant has to be sure to get powder, so they select the concern that is to operate the Government-owned plant. Of course, if you want sequence of time it is going about it from the hind end first, but that is the important end. Now, as under the law, all construction must be under the Quartermaster Corps; the Ordnance Department cannot be responsible for building the plant. Then they have to take up with the Quartermaster Corps the proposition of building. Where they have already selected their concerns—as they had in this case, Sanderson & Porter—they propose

to the Quartermaster Corps who shall build the plant. Now, if the Quartermaster Corps takes the nomination of the Ordnance Department as the proposed operator also to build it, there is no point in referring it at all to the Construction Advisory Commission because the Construction Advisory Board only has to do with the selection of the building contractor. The same thing has been done in several other cases, Senator.

Senator BREWSTER. Is this civilian advisory board a dollar-a-year-man board, or are they full-time?

Mr. PATTERSON. No; they are paid, I think, \$6,500 a year.

Senator BREWSTER. Did he sever his connection with Sanderson & Porter at that time?

Mr. PATTERSON. He waived his profits for 1940 and 1941.

Senator BREWSTER. After the event?

The CHAIRMAN. He waived those profits after the hearing of the House Military Affairs Committee.

Mr. PATTERSON. That is right; after the criticism.

Senator BREWSTER. You feel that he was as careful as he should have been, do you, in his conduct of his relations with the Government and with the concern with which he was associated?

Senator HATCH. Senator Brewster, isn't that an unfair question to put to the Secretary—to call for his opinion?

Senator BREWSTER. He has given his opinion.

Senator HATCH. He ought to give us the facts and let us make up our own minds.

Mr. PATTERSON. The fact is, Senator Brewster, he didn't act in this transaction in any fashion. He wrote a letter at the time, which we received, pointing out his interest in Sanderson & Porter, so that there was no concealment of any variety.

Senator BREWSTER. You mean before the contract?

Mr. PATTERSON. Before the contract was made; and stating that he would have nothing to do with the award of that contract or the recommending of it. I want particularly to point out that his companions on the board had no influence or nothing to do with the selection of that firm, either.

Senator BREWSTER. I think that is very valuable to bring out.

Mr. PATTERSON. Yes; it is because we all know that sometimes, if there are three men there and one man has an interest, he says, "I will walk out of the room for a few minutes," and the others may do him a favor. I don't say that happens in the Government; but we all know business deals where that has happened, and then as much is done for another member later on. That did not happen in this case because the project never came before that Board of which he was a member at all.

Senator HATCH. Does that Board, or did it, ever make final selections of the contractor?

Mr. PATTERSON. No, sir. It merely made a recommendation, naming three contractors, building contractors, from whom the Chief of the Construction Division picked one.

Senator HATCH. The Chief of the Construction Division then made the final selection?

Mr. PATTERSON. I suppose I made the final selection.

Senator HATCH. Oh, you made the final selection?

Mr. PATTERSON. I suppose so; though ninety-nine times out of a hundred the Chief of the Construction Division does make the selection, and his selection, though not final, generally sticks.

Senator HATCH. Is the Chief confined to the three recommendations made by the Board, or could he go outside of that?

Mr. PATTERSON. He could, but I don't think he ever did, not in any case that I know of. Of course, as I have pointed out, the treatment was different in the munitions-plant program, and that was because the using service, which is generally the Ordnance, has to be responsible for production of that plant, and they are vitally interested in the selection of the building contractor who is going to build it, because suppose the plant doesn't produce powder or doesn't turn out tanks, then the operator, which is an industrial concern, can say, "Well, you never gave me a decent plant in the first place; the plant was no good." So the Ordnance has to be ready to meet that contention and say, "Well, we will take the responsibility also for the building contract." And so is not an exceptional case. I had the subject looked up and I think in about 13 cases the selection was made without reference at all to this Construction Advisory Board, in the case of these munitions plants where the selection of the operator to operate the plant and of the builder to build the plant was made purely between the Ordnance Department and the Chief of the Construction Division of the Quartermaster Corps.

I might cite the Hercules powder plant down at Radford, Va., which is already in operation. That is a case just like this one, where the Hercules Co. is both the operator chosen by the Ordnance Department and the builder of the plant chosen by the Ordnance Department plus the Quartermaster Corps—concurrence of those two services.

Senator BREWSTER. Is that a fixed fee?

Mr. PATTERSON. I think on the whole our experience has been that it is better to have the responsibility both for the building and operating of the plant centered in one concern. If it wants to subcontract the building, well and good, but we have one concern to look to, and if the production is not proper at that plant, they can't pass us along to somebody else and say, "Well, it's his fault; he didn't build the plant right. We didn't ever like the plant when we moved into it." That isn't true where you have a case like this one I have described. If that plant doesn't operate well, Sanderson & Porter have no one to shift the blame to. They built the plant and they are also to operate the plant.

Senator BALL. How about the other members of this civilian advisory board? Did they have business connections in the construction industry?

Mr. PATTERSON. I think they were all retired from business. That board consisted first of three men, Mr. Blossom, Mr. Harvey, and Mr. Dresser; one was from New York, one was from Cleveland, and one from San Francisco. Two more were added to that Board, Mr. Hammond, of Chicago, and General Spalding, a retired Army officer, and now Mr. Tatlow has been added to the Board in place of Mr. Blossom. It is a five-man Board now instead of three.

Senator BALL. The thing I was getting at was that their whole business background, to make them of any use on the Board, would naturally have been in the construction field.

Mr. PATTERSON. Oh, yes.

Senator BALL. I was wondering if any effort was made to see if they severed any business connections that might prove embarrassing to them.

Mr. PATTERSON. Well, that is true. I think Mr. Dresser and Mr. Harvey have no active business connections. They are, of course, in the engineering field. That is the whole point of it. They were supposed to be especially qualified to go over the qualifications and the skill and the competence of contractors who were applying for work. We have added General Spalding and another member to the Board because the duties are very onerous duties, and while they don't make the final selection, still that nominating process is serious business; there is no question of it. I am satisfied they have done it to the best of their ability and without regard to personal interest at all.

Senator BALL. The point I was trying to make was whether you made any effort when they were appointed to see that they severed any personal interests that might embarrass them in making these selections.

Mr. PATTERSON. I am sure that they have passed on no cases in which any concern that they had any interest had a part. That has been gone over pretty carefully in the last 3 months before the House Military Affairs Committee, and so far as I know, no case whatever has been found, although all of the members of the Board have been examined. But I can't say finally. General Somervell may be able to because they work right under him.

Senator WALLGREN. You mentioned the fact in your statement that board had classified 4,200 contractors.

Mr. PATTERSON. Yes, sir.

Senator WALLGREN. Do you think it might be advisable, Mr. Chairman, to have a list of those?

Mr. PATTERSON. I will be glad to show you that file. I inquired into that 2 or 3 months ago, and I was struck by the careful work that these gentlemen on the Board have done.

The CHAIRMAN. I think that we would like to have a list of those 4,200 contractors for the record of this committee.¹

Mr. FULTON. As I understand, Mr. Under Secretary, General Spalding is expecting to be a witness on this general subject.

Mr. PATTERSON. The files are in his charge. I am sure that he will be glad to furnish the committee with a list.

Mr. FULTON. I think we can give Senator Wallgren full information that way.

Mr. PATTERSON. Very good.

The CHAIRMAN. Proceed.

ACQUISITION OF LAND BY THE WAR DEPARTMENT

Mr. PATTERSON. Land for the War Department is acquired under direction of the real-estate branch of the Quartermaster Corps. The policy is to resort to condemnation only when land cannot be obtained by voluntary sale at a reasonable price.

Sites for cantonments, if not already publicly owned, are generally acquired through land-acquisition agencies of other departments. In acquisitions for munitions plants, the practice at first was to retain the

¹ Subsequently entered in the record as Exhibit No. 38 and on file with the Committee.

services of a real-estate agent in the State where the land was located, on a commission basis, generally at 5 percent of the purchase price. That practice was not sound.

The CHAIRMAN. We all agree to that.

Mr. PATTERSON. I am not here to defend it, Senator.

The CHAIRMAN. We all agree that practice was not sound.

Senator BREWSTER. How long was it in effect?

Mr. PATTERSON. Three or four months.

The commissions were too high, and the use of any percentage system is open to the objection that the agent's financial interest is in favor of high prices.

The CHAIRMAN. It is all very well to the real-estate business to sell on a higher basis but it is not to the interest of the purchaser in a proposition of that kind. How did they come to make an arrangement of that sort, Mr. Secretary?

Mr. PATTERSON. Only this, I think it seems to be a usual practice with all of us and among the public to hire a real-estate agent on a 5-percent basis. That seems to be the standard commission all around, and I suppose the difference in the situation didn't occur to them down in the real-estate branch at the time that they were retaining the agent, and they did it on the ordinary basis that the seller would do it on.

Senator BREWSTER. Who was responsible for that?

Mr. PATTERSON. I can't say. Of course, I suppose the head of the real-estate branch was primarily responsible. I have looked in my files to find if I had any knowledge of the practice. From one letter, at any rate, that I signed in August it would appear that I had.

Senator BREWSTER. But the significance of it?

Mr. PATTERSON. The significance, no; I can see it plainly enough now, and I think I did quite shortly afterward, and I insisted upon a change in the practice. Things were moving pretty fast along about that time.

I have it right here. Senator Brewster, you inquired about when the practice was changed. In December 1940 the practice was changed.

Senator BREWSTER. When was it instituted?

Mr. PATTERSON. I don't think we bought anything under it until September or October. I think it was applied in about nine cases.

Senator BREWSTER. The agents were retained in August?

Mr. PATTERSON. Oh, no; some of these agents had only been retained in November.

Senator BREWSTER. But the first case of it is what I was trying to get at.

Mr. PATTERSON. I think so; I think it was in August.

The real-estate branch has been directed to employ the Soil Conservation Service of the Department of Agriculture wherever practicable, and in other cases to retain real-estate agents for a fixed fee. Those other cases are all subject to my approval. In other words, they are not to retain agents unless I so direct. More recently we have reorganized the real-estate branch. We have also reviewed the earlier acquisitions which had been carried out on the percentage commission basis.

Senator WALLGREN. Mr. Chairman, I think at this point we ought to know where this property was acquired.

Mr. PATTERSON. I have it here, Senator, and I will give it to you in just a moment.

In these older cases we have attempted to reduce the agent's commission to amounts not in excess of $3\frac{1}{2}$ percent of the cost of the land. Now that is not a persistence in the percentage commission basis. This was only by way of settlement of the cases that had already occurred. In the acquisition for the Jefferson Proving Ground, Indiana, the agent's commission of $6\frac{1}{2}$ percent was cut down to $3\frac{1}{2}$ percent, and the fees of the title company, which had been excessive, were reduced to a reasonable basis. The prices paid to landowners were found not to be excessive in that case.

Senator WALLGREN. What was the amount paid for the ground at the Jefferson Proving Ground?

Mr. PATTERSON. A rather low price; as I recall it, about \$165 an acre, average. It is a big tract all right.

Senator WALLGREN. Yet that proving ground is costing the Government some \$56,000,000. Is that right?

Mr. PATTERSON. Oh, no, no, no!

Senator WALLGREN. Not the ground, but the plant.

Mr. PATTERSON. Oh, no, no, no!

Senator WALLGREN. It seems to me the testimony yesterday of the Secretary was to that effect.¹

Mr. PATTERSON. That is the powder plant in the same area. That is the Charlestown powder plant. The Jefferson Proving Ground is near Madison, Ind., and is in southern Indiana, and some distance from the powder plant; but a proving ground can't cost anything like that. I am certain the land wouldn't cost more than \$3,000,000. After all, a proving ground, you know, is chiefly only acreage.

The CHAIRMAN. Those figures can be placed in the record.²

Mr. PATTERSON. Oh, yes.

In the case of the shell-loading plant near Burlington, Iowa, the prices for land were found to be excessive and were reduced to reasonable levels by agreement with landowners in all uncompleted transactions. Some of them had already been closed. The agent's commission was reduced from 5 percent to $3\frac{1}{2}$ percent. At Fort Meade and at the Kingsbury Ordnance Plant, Ind., the prices for land were found to be reasonable, and the agent's commissions were reduced from 5 percent to $3\frac{1}{2}$ percent.

Senator WALLGREN. Now, Mr. Secretary, at that point I would like to refer back to this testimony yesterday of the Secretary. In his statement he went on to say that projects vary in size from a few hundred thousand dollars to fifty-six million dollars, which is the cost of the Indiana Proving Grounds and powder project. That means the two together will cost that much.

Mr. PATTERSON. Yes; that must mean the two together, and the vast bulk of it is in the powder plant.

Senator WALLGREN. I recall that part of his statement, and I was mistaken.

Mr. PATTERSON. We have three projects right close together in southern Indiana, the proving grounds, the powder plant, and the bag-loading plant.

¹ Supra, p. 9.

² Under date of June 9, 1941, the War Department furnished the figures on the cost of acquisition of land for Jefferson Proving Ground, see appendix, p. 394.

Senator WALLGREN. I suppose the idea of having the proving grounds there is because the powder plant was there.

Mr. PATTERSON. I think so.

In two other cases, the Kankakee Ordnance Plant and the Elwood Shell Loading Plant, both in Illinois, the agent's commissions were reduced to $4\frac{1}{4}$ percent, that to include all title evidence and other costs. In these cases the prices paid for land were found to be reasonable. You see, in each of these cases that we were reviewing we had to review both angles of the case, that is the prices paid to the landowners, and also the agent's commission, because as Senator Truman pointed out, there was an identity of interest there between the agent and the landowner.

Senator WALLGREN. You don't know whether the landowner also had to pay a commission?

Mr. PATTERSON. I am sure we would have heard of it if he had.

In the case of the TNT plant at Weldon Springs, Mo., investigation showed that the agreed prices for land were unreasonably high. A number of purchases at high figures had already been completed. We have declined to go forward with uncompleted purchases and have caused the Department of Justice to start condemnation proceedings. The agent would not agree to reduce his fee, and further payments have been withheld from him. The courts will decide whether the Government is bound by agreement to pay the original prices.

Now there has been a good deal of altercation and dispute and controversy about that case, gentlemen, but as far as I can see that was the only sensible way to handle it. As long as the reports came in to us that the prices were too high, I did not see how an administrative officer of the Government with notice of that fact should go on and pay excessive prices. If we were in error, it was just simply because the options had been accepted by some subordinate officer. The district court in Missouri can say so, and we will, of course, pay it.

The CHAIRMAN. I have been informed that a great many of the titles to this land are from Spanish grants down to the present time, and that some of those land titles which had been brought up to date by people who had made country homes out in that section from the city of St. Louis, are the ones who have received the money on this thing, and the actual farmers and landowners who are suffering from the situation are the ones who couldn't bring their titles up to date properly and now they are being held up, and in some instances have made contracts for land and farm purchases and have had to forego those purchases.

Mr. PATTERSON. There has been a hardship on some of those owners who had moved off and made contracts to purchase other property.

Mr. CHAIRMAN. Is there any possibility of a recovery, if the purchase price was too high, to those who have already been settled with?

Mr. PATTERSON. I can't say.

The CHAIRMAN. Everybody should be treated alike.

Mr. PATTERSON. Yes; that is true. I told them to hold the matter in abeyance. We will see what comes of the condemnation cases that are in controversy. If the courts say that we only have to pay the reasonable value no matter what the agreed price, then the question will come to whether we can get the money back from the people who have already got it. I have asked the real-estate branch to send a

special man out there to St. Louis and try to clear up, if they possibly can, the cases of the rather small purchasers where the figures involved are not large.

The CHAIRMAN. I hope that can be done.

Mr. PATTERSON. And try in every way to make some adjustment with those people. Of course, they can get their money on the deposit in court now, but it may be that value is not acceptable. They can still take it, of course, and try to get the balance or any excess that they think they are entitled to.

Senator BREWSTER. That wouldn't debar their court proceeding.

Mr. PATTERSON. No; I think not. We deposit in the court under the condemnation case our conceded value with leave to them, so far as we are concerned, if the judge will do it, to draw down the entire amount of our Government deposit. They can take that and then litigate out for anything more they think they are entitled to. I think that will relieve most of the elements of hardship in most cases. If our conceded values are right it does it, of course, every time.

Senator BREWSTER. That eliminates the question.

Mr. PATTERSON. I have seen that done very often in courts. I used to try these condemnation cases when I was on the district court. Those were not, of course, big cases like these or cases done in great haste or speed. They were post-office sites, things like that. In those cases, the deposits made by the United States in behalf of the Post Office Department were not far from the fair values of the properties.

Senator BREWSTER. The court, however, would not have jurisdiction in those cases on the question of the contract, would it?

Mr. PATTERSON. I think likely. It would seem to me that if a landowner made a showing, no matter what the value might be and what the testimony might be as to the fair value, in this case he has a signed paper by a man who says, "I propose to show I was authorized to represent the Government in this transaction, and I say that the amount of money that I am entitled to in this case is the amount given in that figure." I think the court would have jurisdiction to say which sum should be paid him. I haven't studied the situation carefully.

Senator HATCH. On these other purchases, Senator Truman asked if there was any possibility of recovering the excess price paid to some of these so-called millionaires. I was just noticing that the agent had charged an excessive fee and everything else. As a lawyer, Mr. Secretary, fraud vitiates every contract, and if there is any fraudulent arrangement, of course the Government could go in and recover.

Mr. PATTERSON. I haven't seen any sign of that in this contract. The agent seems to have gone ahead posthaste under the spur of urgency. I am not criticising him wholly for that. "How much do you want for this place?" There was no appraisal made.

Senator HATCH. No appraisal at all?

Mr. PATTERSON. No, sir; and the man would say he wanted so much. Well, I don't know of any fraud about that.

The CHAIRMAN. Proceed, Mr. Secretary.

Senator BALL. Mr. Secretary, I notice you say the agent's commission on the Jefferson Proving Ground was 6½ percent only. How did that one happen to be 1½ percent higher?

Mr. PATTERSON. I think that someone in the Quartermaster Corps was overpersuaded that the job was one of unusual intricacy and difficulty. However, that is over the dam, and the agent came down

to what we think was a satisfactory figure. Of course, these reduced percentages were not like the original percentage in that they might be an inducement to high prices, because the land had already been acquired, and this was just a measuring stick for the sum of money to be paid the agent. That is all.

One more point on selection of contractors. There are men in Washington and out of Washington who claim that they have influence with the War Department and can obtain contracts for a few. The practice is a pernicious one, whether or not unlawful.

We have done what we could to suppress it. Our contracts carry a clause giving us the right to cancel in case the contractor has paid a commission for the obtaining of the contract to any person other than a regularly maintained-selling agency. We require an affidavit from contractors in connection with building construction, to the effect that no commission has been paid or arranged. Months ago I issued a public statement, warning business concerns to pay no attention to people who claim they can obtain contracts from the Department and calling attention to the clause in the contracts that the contractor would have to sign. We have also asked the Inspector General's Department to investigate practices reported in a number of cases, and the results have been turned over to the Department of Justice. We would appreciate any help this committee can give in dealing with the problem.

Senator HATCH. Is that still going on?

Mr. PATTERSON. We still hear rumors. Senator Vandenberg got up on the floor of the Senate in the last month and called attention to it and, as a matter of fact, told the business concerns not to be suckers and not to fall for that kind of stuff. I think Mr. Nelson, of the Advisory Commission, warned people within the last month or two against retaining people who pretended that they had some drag of some kind on inside stuff with the Department. I think it still does go on. I don't know.

Senator BREWSTER. Is there any concerted practice by the Government departments as to requiring disclosure of agents and fees?

Mr. PATTERSON. The clause in the contract here that I referred to contains a warranty by the contractor that he has not employed. That is a standard clause, and that is in other contracts as well as War Department contracts.

Senator BREWSTER. All through the Government?

Mr. PATTERSON. I think so. It is one of the standard forms used by all departments. I think there are adroit people who could still indulge in that practice and try to get out of that clause by cloaking it as not for the contract, but for engineering services or business advice. I don't know. There are all kinds of ways.

Senator BREWSTER. Subterfuges?

Mr. PATTERSON. Yes, subterfuges. The ingenuity of people can go a great way.

I am covering, gentlemen, the topics indicated in the resolution creating the committee—in a measure, at any rate.

Senator BREWSTER. May I ask at this point whether or not you would feel that an extension of the present law prohibiting the appearance of former government employees before commissions and on claims might be wisely extended to the contract situation? Do you think that would be prudent?

Mr. PATTERSON. Well, it would probably cover some cases.

Senator BREWSTER. Do you think that has been——

Mr. PATTERSON (interposing). It wouldn't cover all of them, of course, because a lot of these people don't say that they were ever in the Department, and they never were.

Senator BREWSTER. I think that situation arose after the last war in connection with tax claims where there were a great many cases of former employees in Government departments appearing on behalf of private interests with the benefit of the knowledge acquired while serving the Government. So the law prohibited it. I wonder to what extent that prevails now in connection with this \$40,000,000,000 program.

Mr. PATTERSON. I don't know.

Senator BREWSTER. You are not having many employees leave the Government, I take it?

UTILIZATION OF FACILITIES OF SMALL COMPANIES

Mr. PATTERSON. I know of no cases that would be covered by that. A letter was called to my attention that was published by some man who didn't say that he could conclude contracts, but he called attention to the fact that he had formerly been in the War Department. I think he magnified his position very considerably. I found, on investigation, that he was a very minor clerk, handling files of some kind or other, whereas I think he touted himself as being in charge of purchases.

Senator BREWSTER. I saw such a letter within recent weeks, which I think was of the same character. I don't know whether this fellow had any connection. He pretended he was now connected, but I had grave doubts about that. I didn't think it was serious enough to bring to your attention.

Mr. PATTERSON. There have been charges that the War Department has unduly favored large companies in placing defense orders. That charge is unfounded. There has not been a concentration of defense contracts with big companies out of proportion to their share of the productive facilities of the country.

We have constantly tried to place defense contracts with small business concerns. When it came to our attention that small concerns were having trouble in obtaining surety bonds on supply contracts, we asked for new legislation to permit the Secretary to dispense with bonds on supply contracts, and the Senate has already passed that measure. It has not yet come on the floor of the House. We have been liberal in making cash advances up to 30 percent of the amount of the contract. We have assisted small contractors in financing with the Reconstruction Finance Corporation and with banks. There is a section in my office charged with the duty of supervising cash advances to contractors and of helping them to obtain other financing. And we had a section planning the utilization of small concerns in the defense program, until that section was transferred to the Office of Production Management.

Nevertheless, a large part of our contracts, measured in dollar amount, has undoubtedly been placed with large industrial concerns. Orders had to be placed with companies best equipped to handle them with speed. These proved in many cases to be companies with large production facilities. We had to take industrial America as we found

it. For steel we went to the established steel mills. For automobiles we went to Detroit. So does the general public.

Take airplanes: We place orders with concerns that can manufacture them, and contracts must be placed in line with the manufacturing facilities, existing and potential, of the particular company. The manufacturers are sharing a great amount of their work by subcontracting with other concerns. The Lockheed Co., for instance, has 350 subcontractors; the Boeing Co. has 325.

I saw a map the other day, with the lines stretching out from Seattle, where the Boeing Co. has its plant, to places where it is placing orders and buying its parts, and it was a spider web that went right across the United States of America.

The situation in ordnance procurement is the same. Speed is of the essence, and speed made it necessary that orders be placed with concerns with whom preliminary arrangements for production of munitions had been made under the industrial mobilization plan in the years preceding the emergency. We needed medium tanks in large numbers, of uniform design, and we needed them quickly. We made contracts for them with Chrysler, Baldwin Locomotive, and American Locomotive. It would have been folly to have ignored the great productive facilities of these concerns and to have placed our business with companies that could not produce quickly. With machine guns, small-arms ammunition, and many other items, we would have been culpable if we had not placed contracts with concerns of proven productive capability, with the skilled labor and the management essential to large-scale production in the shortest time.

Supplies purchased by the Quartermaster Corps are largely of a commercial character. Small concerns have received many contracts for supplies of this sort. We have made every effort to spread the work. For example, the Quartermaster in bids for shoes has placed maximum limits on the number of shoes which any one bidder could undertake to furnish, thus making it possible for small manufacturers to obtain shoe contracts.

Our policy has not been one of hostility to small companies or to large ones. The Department realizes that the full productive effort necessary for our defense program will not be forthcoming until the facilities of small concerns all over the country are enlisted. In co-operation with the Office of Production Management, it is doing all in its power to place business, by contract or by subcontract, with such concerns.

GEOGRAPHICAL DISTRIBUTION OF CONTRACTS AND THE LOCATION OF NEW PLANTS

MR. PATTERSON. We have all seen maps of the United States with piles of gold coin shown on each State, supposed to represent the value of defense contracts placed in the State. And because the piles are high in the Northeast and in southern California, one might draw the inference that those regions have been favored and other regions neglected. A brief review of the facts I submit will show that there has been no geographical favor in any phase of the procurement program.

It should be plain to anyone that contracts for ships and for airplanes must be placed where the facilities for producing them are

located, and almost all of these facilities have been on the Atlantic and the Pacific seaboards. Ships and airplanes account, in dollars, for 51 percent of the entire program for which contracts thus far have been placed. And as to airplanes, it should be noted that the War Department is financing large new manufacturing facilities for production of airplanes and airplane parts in the interior, where there were very few before. New plants are being built in Indiana, Kansas, Michigan, Missouri, Nebraska, Ohio, Oklahoma, Tennessee, and Texas. We are not doing that out of favor for those States, of course, gentlemen. We are doing it for military strategy. Those are strategically safe areas, and it is a good thing to spread out your production of a thing as vital to a military program as airplanes. When we came here, when this defense program was launched, we found practically every airplane plant and almost every airplane engine plant right on the seaboards, right on the coast. Now, that is a fact.

Senator BREWSTER. Those are Government-financed plants, are they?

Mr. PATTERSON. All are Government-financed plants. Some of them are straight Government plants with private operation; others are under the two other types of contract which I described yesterday.

Senator BREWSTER. You heard my question to the Secretary yesterday about the rumors that Government was going into the construction of airplanes on a very extensive scale?

Mr. PATTERSON. I know of no foundation for such a report, unless it be this, that the construction of the four bomber plants at Omaha, Kansas City, Tulsa, and Fort Worth has been under way; but those are plants to be operated by private industry. There is nothing very remarkable about it.

Senator BREWSTER. They are in the same line with what you are doing in ordnance and in many other fields?

Mr. PATTERSON. Yes, sir.

Senator BREWSTER. Under similar conditions.

Mr. PATTERSON. No one had the slightest idea, so far as I know, that the Government should operate those plants. Of course, the reports we had of Government operation of airplane plants in France would not make us want to repeat the experience. No; there is no such idea. If it was attributed to me, I can't understand why it was.

Senator BREWSTER. Do you see no reason why in the airplane-manufacturing field we should develop at this time, at any rate, anything comparable with what the Navy is doing in the building of ships, where they have followed a policy of approximately 50-50, Government and private?

Mr. PATTERSON. I see no reason for it.

Senator WALLGREN. You are acquainted, however, with this indictment that the Government has against the Aluminum Co. of America, the Dow Chemical Co., and several other defendants?¹

Mr. PATTERSON. Only vaguely. I have not studied it.

Senator WALLGREN. It seems that this Government is passing up an opportunity to take full use of magnesium deposits in this country.² Germany has been using them in the construction of planes for years, and Dow Chemical Co. has been making this magnesium for a considerable period of time. But they are tied in with a German concern,

¹ For further discussion of this subject see Hearings, Part 3.

² Ibid.

and the charge in this indictment is practically that there is a monopoly. I am wondering if that hasn't something to do with the excessive cost of airplanes to our Government.

Mr. PATTERSON. I really can't comment upon the charges because they are with the Department of Justice, and the Department of Justice can handle them, but the cost of airplanes has not gone up on account of any increase in the price of aluminum.¹ In fact, it has come down.

Senator WALLGREN. But they have maintained a fixed price for aluminum, with magnesium constantly 50 percent higher, and there is only one concern that manufactures aluminum today.

Mr. PATTERSON. Recently other firms have gone into both the magnesium field and the aluminum field. I would rather not comment upon the case now in charge of the Department of Justice.

Senator WALLGREN. But is there any other company furnishing aluminum?

Mr. PATTERSON. Yes, sir.

Senator WALLGREN. Today?

Mr. PATTERSON. Reynolds Co.

Senator WALLGREN. Are they really furnishing aluminum at the present time?

Mr. PATTERSON. Well, I won't say as of today, but the arrangements have been made.

Senator WALLGREN. Yes.

Mr. PATTERSON. We have assisted them in getting it into production.

Senator WALLGREN. Yes; I will admit that. They are building a plant out in my country.

Mr. PATTERSON. Of course, there is none coming out of that plant in the Northwest, because that has only been arranged in the last month or two, but I understand they have a plant down in Alabama. Whether that is producing now or not, I don't know.

Senator WALLGREN. There is a question in my mind whether there is an excessive cost of aluminum, whether this Federal Government is paying a lot more than it should for airplanes, whether or not we are getting as much for our money as other nations are getting.

Senator BREWSTER. What percentage of the cost is in aluminum?

Senator WALLGREN. I couldn't say.

Senator BREWSTER. Would you have the figure on that?

Mr. PATTERSON. I understand from the Air Corps that it amounts to about 25 percent of the cost.

Senator BREWSTER. You mean the aluminum constitutes 25 percent of the cost?

Mr. PATTERSON. Something like that; yes.

Senator WALLGREN. In other words, there would be \$75,000 worth of aluminum in a \$300,000 plane?

Mr. PATTERSON. Of course, the aluminum itself doesn't cost that much. I suppose it would be in the workmanship—

Senator WALLGREN (interposing). And in fabricating the parts.

Senator BREWSTER. I intended to direct my question to the actual cost of the aluminum entering into the plane, raw aluminum, if that is the proper phrase.² Do you know about that percentage?

¹ Hearings on aluminum are included in Part 3.

² Submitted June 9, 1941, see appendix, p. 395.

Mr. PATTERSON. No; that is under the Department of Justice, gentlemen.

Senator BREWSTER. No, no; I am addressing myself to your position as purchasing planes. You have accountants in all these plants to determine costs.

Mr. PATTERSON. We audit all airplane contracts in the Air Corps; yes.

Senator BREWSTER. I should assume someone in your Department must have the figures on what the raw aluminum costs are in connection with the average plane.

Mr. PATTERSON. Of course, I know in a general way what the price of aluminum is. It has been reduced in the last 2 or 3 years quite considerably. It is lower per pound now than it was, but I can't say how much the fabricating of it into tools and extrusions and specially strengthened aluminum sheets is. It can be furnished, of course.

Senator BREWSTER. I think I would like to have that figure.

Mr. FULTON. We will go into further figures on that.

Mr. PATTERSON. Someone in the Air Corps can do that.

Senator WALLGREN. Is the War Department interested in the use of magnesium and aluminum, taking any steps to further develop the magnesium deposits which we have in this country?

Mr. PATTERSON. Yes, sir; there is a concern just taking over some new project in California. I think it is called the Permanente Co. And, of course, there is construction down on the Texas coast and, I believe, up in Michigan.

Senator WALLGREN. That is taking the magnesium out of the salt water, isn't it?

Mr. PATTERSON. Yes, sir.

Senator WALLGREN. It doesn't take advantage of our natural deposits.

Mr. PATTERSON. I can't speak as to the relative merits of the two processes. That one out in California is taking it out of magnesite, as I understand it.

Senator BREWSTER. Where is that located?

Mr. PATTERSON. Somewhere in California.

Senator BREWSTER. That is the one near San Francisco.

The CHAIRMAN. Proceed, Mr. Secretary.

Mr. PATTERSON. If we leave out the account moneys obligated for ships and airplanes, the figures show that the moneys committed for defense purposes in the various regions of the country correspond closely to their preexisting industrial capacities. I submit a report prepared by the Office of Production Management showing this correspondence quite clearly, by Federal reserve districts.

This report deals with manufactured products only and does not include provisions, services, and basic raw materials. It should not, therefore, be taken as a complete picture of the distribution of the defense dollar. Industrialized areas naturally have received the greatest proportion of contracts for manufactured articles. It is reasonable to assume that mining and agricultural areas have in like manner received their proportionate share of the expenditures for raw materials and agricultural products. Our economic system is so interwoven that the country as a whole is ultimately sharing in defense spending on the same basis that it has previously shared in distribution of national income.

The general principles governing contract awards which were adopted by the National Defense Advisory Commission, published by the President in September 1940, and adhered to by the War Department, state as one of the important considerations the evidence of undue geographic concentration of contracts, both for military reasons and as an aid to speedy production. We are constantly trying to spread the work geographically. Thus, the Quartermaster General has changed the specifications for clothing from bids for delivery at depots to bids f. o. b. factory, and by this measure all concerns, wherever located, may bid on a parity.

In locating new industrial plants, efforts have been made to place the plants in the interior and to disperse them to the greatest extent possible. Obviously, there are limiting factors. Plants must be located where there is adequate labor supply, transportation, power, and other essentials for production. In some cases, it has been evident that speed would be achieved by locating new plants near old plants operated by companies which were to operate the new. And this has been done, even though it resulted in new plants being located along the seaboard.

Many camps have been located in the South because of the climate. Camp locations are determined by the General Staff.

The Department makes thorough tests and inspections to make sure that munitions, equipment, camps, and plants manufactured or constructed for it conform to prescribed standards.

In cost-plus-fixed-fee contracts, the supply services are charged with the responsibility of audit of contractors' costs. The Air Corps, under the 1926 act, also audits all contractors' costs under lump-sum aircraft contracts. Representatives of the supply services are on location checking expenses.

There has recently been established in my office an audit control section, in charge of a distinguished accountant, Col. A. H. Carter, to examine accounting practices in effect in the supply services and to make recommendations for improved methods.

SPECIAL BOARD OF THE WAR DEPARTMENT ON TAX AMORTIZATION CERTIFICATES

Mr. PATTERSON. Under the excess-profits tax law, taxpayers who construct facilities necessary for national defense may amortize the cost of such facilities over 5 years. Where the taxpayer has a contract with the Government, he must also show either that he has not been reimbursed by the Government for the cost of the facilities or that the Government has adequate protection in the future use or disposition of the facilities. The right to a 5-year amortization is evidenced by certificates issued by the Department concerned—either the War Department or the Navy Department—and by the National Defense Advisory Commission.

A section was established in my office to pass upon applications for these certificates. This section obtains reports from the supply services and from qualified persons with the Advisory Commission on whether the facilities are necessary for national defense and whether there has been any reimbursement. After approval of the certificates by me, they are sent to the Advisory Commission for action by that body. Up to April 3, 2,400 applications for amorti-

zation certificates had been received, and 1,050 had been completed and sent to the National Defense Advisory Commission. The routine procedure is that the department concerned, either the War Department or the Navy Department, passes first on these applications, then sending the case over for the separate certificate to be given by the Advisory Commission. I say "separate" certificate. The two signatures are on the same paper, but they are in effect separate certificates, because the proceedings in the two bodies are independent.

We are setting up a new procedure for determining whether certificates should be granted. A group of exceptionally qualified men is being asked to serve on a panel from which boards will be selected to make recommendations on applications for certificates of non-reimbursement and Government protection.¹

The CHAIRMAN. Will you furnish the committee a list of that panel? ¹

Mr. PATTERSON. They haven't all accepted yet, Senator. When I know who they are, I surely will, and I will know who they are within the next day or two.

LABOR DIVISION OF THE WAR DEPARTMENT

Mr. PATTERSON. We have established in the Under Secretary's Office a labor division through which is coordinated all War Department action on matters affecting labor. This division is under the supervision of Mr. Edward McGrady, formerly Assistant Secretary of Labor, whose patriotic services have been of great value to the Department. This division day by day reports on all strikes which affect plants with War Department contracts.

I have testified at some length before other committees as to the War Department's labor policy. Management and labor have in general cooperated heartily with the War Department to expedite the defense program. But every strike that occurs in plants having defense contracts impedes our defense program, and we cannot afford impediments.

Senator WALLGREN. Mr. Secretary, right there does the Department pay particular attention, in the awarding of these contracts, to the fact that a local contractor is better acquainted with labor problems in and around that community?

Mr. PATTERSON. Yes, sir.

Senator WALLGREN. Well, I know of one particular instance where a strike could have been averted, I think, if the contract had been let to local people.

Mr. PATTERSON. A building contract?

Senator WALLGREN. A building contract.

Mr. PATTERSON. We do give preference to local concerns in awarding contracts because they are very familiar with labor and materials in the vicinity.

Senator WALLGREN. I know that this firm which sought this contract knew the conditions and would never have made the mistakes that this outside firm made when they came in there. True enough, there was a question of a jurisdictional fight, but I know this con-

¹ A list of the members of the special board of the War Department on Tax Amortization Certificates appears in the appendix on p. 374.

tractor would never have made that mistake. Yet the outside firm came in and slapped one of the unions in the face, and as a result, the plant was tied up for a considerable period of time. I think it is a rather important thing.

Mr. PATTERSON. There is that risk, and we have been aware of it, and our policy is shaped in an attempt to avoid it.

Since establishment of the National Defense Mediation Board, strikes have been substantially reduced. I hope for further reduction.

Of course, we do not assume the primary responsibility for dealing with industrial controversies in the form of strikes and stoppages of work. We have the Department of Labor, the labor section of the Office of Production Management, and the Mediation Board, and we do not undertake to interfere or to take the lead in matters which those departments are already concerned in and are working on. We follow the matter very carefully, however, and take up our cases with those other governmental agencies and impress upon them the importance of having work resumed. We are not directly interested in the terms upon which work is resumed, but it is vital to our interest to have the work go forward and to have no stoppage.

Senator BREWSTER. From your experience, do you recommend any legislation at this time dealing with that matter?

Mr. PATTERSON. No; not at this time.

Senator BREWSTER. Do you think that there is adequate power in existing agencies to handle any situation that can be reasonably contemplated?

Mr. PATTERSON. I believe so; and I am sure that they are entitled to the chance of working it out rather than try any legislation which might not improve matters at all. That has been my opinion.

The CHAIRMAN. I am glad to hear you say that, Mr. Secretary.

Senator BALL. Mr. Secretary, on these cost-plus-fixed-fee contracts, isn't the Department pretty directly concerned whenever a dispute arises concerning either wages or hours? It is certainly going to affect your cost.

Mr. PATTERSON. Yes; we haven't had any of those instances. You mean on strikes and higher wages paid?

Senator BALL. Any kind of dispute, not necessarily the result of a strike, but when a union demands higher pay.

Mr. PATTERSON. Of course, those contracts have been used in the main for building construction work, and the minimum rates of labor there are fixed by the Department of Labor.

Senator BALL. You take their recommendations pretty much, then?

Mr. PATTERSON. We have to under the law.

Senator BALL. I see. One contractor who had a building contract from the Department on a competitive-bid basis told me that he was having a little trouble because a neighboring job about 50 miles away on a cost-plus-fixed-fee basis was paying mechanics several cents above the union scale and was paying them more liberal overtime rates. It was stealing his men from him. I wonder if the Department has any kind of policy on that.

Mr. PATTERSON. There have been some quarrels like that in some situations. There is no doubt about it. But I don't think there have been very many.

Senator BALL. I can see where a contractor working in private building, where private building is going on, and who has a job on a

competitive-bid basis, is in a lot tighter position in talking wages than a contractor on a cost-plus-fixed-fee unless the Department backs him up and adopts a uniform policy on it.

Mr. PATTERSON. It is one of the weak features of the cost-plus-fixed-fee contract. Unquestionably, there is a lack of incentive on the contractor's part, which is frequently present where it is a lump-sum bid, and any changes in cost of materials or anything else on the job comes right out of his bids.

Senator BALL. You mentioned Mr. McGrady as handling your labor relations. Does he do any mediation work?

Mr. PATTERSON. He is here now.

Mr. McGRADY.¹ No, Senator. I think we all recognize the fact that the wars today are won in factories. I think we recognize the fact that the life line of the Army and the Navy is the production line. Therefore, the War Department, in its wisdom, decided to establish a system whereby we get reports every morning from all construction jobs and from plants and factories, telling us of threatened strikes or telling us of strikes in existence—how many men are involved, and the material delayed. We immediately transfer that information to the Department of Labor, to Mr. Hillman's organization, and they get on the job from there on.

But we follow it every day. We can tell you every day how much material is being delayed, and why, and how many man-days of labor are being lost. That's all of our function.

NEW ACTIVITIES IN OFFICE OF UNDER SECRETARY OF WAR

Mr. PATTERSON. As the defense program expanded, new problems arose. To deal with them, new sections were established in my office. I have already mentioned the sections on auditing, on advance payments and financing, on tax amortization and labor.

A section was created to expedite the arrangements for new plants, chiefly for the Air Corps. This section negotiates with the manufacturers, the National Defense Advisory Commission, the Office of Production Management, and the Defense Plant Corporation, which has been of very great value to us. Three or four men in that section have taken hold and carried the thing right through, which has resulted in great saving of time. They have thorough familiarity with the work now, with 6 months' experience, and have done an extremely good service. It is now in charge of Mr. Ege.

An advisory committee of experts has been established to make recommendations on matters relating to insurance, and a new insurance section has been set up. That may strike you as odd because, as you know, we carry no insurance on our own buildings. Under the cost-plus-fixed-fee contracts for building construction, premium costs on insurance taken out by contractors are paid by the Government. That means workmen's compensation premiums, public liability risks, and insurance on matters of that sort. We require that the contractor solicit bids on insurance. There are resulting problems, largely from competition between stock companies and mutual companies. We have now under consideration a new plan of placing insurance, under which substantial savings in premiums will be brought about.

¹ Edward F. McGrady, special assistant to the Under Secretary of War.

I had that plan explained to me about 2 weeks ago. I understood it. I think, for the half-hour or so that I was hearing it developed, but if you were to ask me what it was now, I couldn't say. But it is a plan, they say, that all large manufacturers follow and pursue in some form or other, and there is no reason why we shouldn't do it, too. They say it is very much cheaper. The experts have all told me that, and I take their word for it.

We have a section in charge of contract information. Summaries of all important contracts are published in the Federal Register, and copies of the summaries are available to the public. We have a room there which anybody can enter (if they can get in the building) and ask for any contract they like, and a summary of that contract will be shown them. They don't have to state their business. It seemed to us that the best thing to do was to have all of the fees, prices, and everything open for public inspection.

The CHAIRMAN. Everything in connection with Government contracts ought to be available to the public.

Mr. PATTERSON. I think so.

These summaries cover the nature of the contract, the names of the contractors, and the prices or fees payable to them. They do not include a detailed description of the work to be done for reasons of military secrecy. For example, in airplane contracts they don't show the number and the type of planes. They do show the total consideration that the contractor is to get.

A few words, gentlemen, in conclusion.

The shelter, clothing, and rations provided for troops are the best that the Army has ever provided. The barracks are comfortable and have been built to last for many years. The clothing is of high grade, far better than the grade issued in 1917. The same is true of rations.

The armament is of advanced design and thoroughly effective. I will mention a few items. The new Garand rifle, the basic weapon for infantry, adopted as standard in 1936, has three times the fire power of the Springfield. It is accurate and dependable. The reports from troops in the field are wholly in its favor. The marines recently adopted the Garand after long and severe tests. We have about 150,000 of these rifles with troops. We are now producing them at the rate of 1,000 a day. For the Field Artillery the powerful 105-mm. howitzer will largely supplant the old 75's.

Our light and medium tanks are superior in speed, armor, and weapons to those of any other army. The Army is well on the way to complete motorization. The combat airplanes now being delivered, bombers and pursuits, are of advanced designs, incorporating the meritorious features developed from the European war. We believe them to be superior to the planes being used in the war today.

Since July 1, 1940, the War Department has been confronted with a sixfold expansion in manpower and a thirty-twofold expansion in material. There has been no hesitation on the part of the Army as to types of weapons and of equipment to be ordered. Basic decisions have been resolutely made. Our money has been put to work fast.

The procurement of many items of a technical nature, not manufactured in this country commercially, is a slow process. One phase of our defense program on which I feel it essential that there be understanding by the public is the length of time necessary for what might be called the "getting ready for production process." In our

most essential requirements, such as airplanes, tanks, guns, powder, there was little productive capacity. As a result, the Army had to contract for the design, engineering, construction, and operation of plants which could produce them. True, we are the greatest industrial nation in the world, and we, more than any other nation, have advanced the science of mass production. But to get mass production operating on the vast scale which we have projected has meant months of planning and designing, of setting up machines and jigs and tools, all before one completed article can come off the assembly line.

They are now beginning to come off in quantity. But a drag in a single indispensable part may delay assembly of the completed unit. The prime task now is to put pressure on the laggards, "to keep the column well closed up," as they say in the infantry.

The program is huge. In carrying it out, under the inexorable pressure of time, we have undoubtedly made mistakes, we undoubtedly could have done some things better. Some errors have been discovered and corrected. One can never be complacent about the progress of a program so indispensable to the safety of the country. But I am confident that the record of this investigation will bear me out when I say that on the whole the program has been prosecuted with exceptional skill and vigor.

For the good progress made, I give the credit to the officers of the supply services. They steadfastly planned in advance of the emergency, despite public apathy in all matters having to do with defense, and they have been alert and tireless in performance. As I look back over the year just past, the outstanding impression is of their wholehearted devotion to duty. They deserve the confidence of the country.

The CHAIRMAN. Senator Wallgren, any questions?

Senator WALLGREN. Not at the moment.

The CHAIRMAN. Senator Hatch.

Senator HATCH. I want to ask the Secretary about this publicity section he has set up, giving detailed information to the public on these contracts. Is that a new thing in the Army?

Mr. PATTERSON. I believe so. I think we started that about last September or October.

Senator HATCH. It had not been done before?

Mr. PATTERSON. No, sir. I think the only release on information was just the release which the press section gave out, giving the name of the concern and the kind of item that was involved; and, of course, they could always get information later on by going around to the General Accounting Office when the contract would be filed there some months later. I think the information was obtainable in that way only. The Navy did it at the same time that the Army did it.

Senator HATCH. The same practice is now in vogue with the Navy, is it not?

Mr. PATTERSON. Yes, sir; we did it in conjunction with one another.

The CHAIRMAN. Senator Ball?

Senator BALL. Mr. Secretary, in this mobilization plan under the National Defense Act, the Army had prepared plans for all these training camps, had it not?

Mr. PATTERSON. The Army General Staff had prepared plans. I can't say to what extent they prepared the very plans that were put into operation. I think their plans did vary somewhat from the plan that was actually adopted last fall.

Senator BALL. I see. I just wanted that for information.

Mr. PATTERSON. That really doesn't come under my direction. I have more to do with the actual construction of them when they pass to the Quartermaster Corps, and of course I have pretty general charge of the munitions-plant construction.

Senator BALL. I noticed you said there that you have now \$15,000,000 for surveys and operation of plans for 28 new camps. Does that include surveys of sites?

Mr. PATTERSON. Yes, sir.

Senator BALL. A complete check-up?

Mr. PATTERSON. That is what the work has primarily been. It is a very considerable program, Senator Ball. It will take some months to do, and it will take quite a force of engineers, going out to these sites and determining on locations. Of course, what they will emerge with will be a complete map with the lay-outs right on it, with all of the specifications—what they call a “lay-out survey”—in such shape that the plans can be shown to contractors, and they can intelligently make bids on a competitive basis on those plans. You can't make it on a competitive basis in any way that I know of short of that. That was the advice that I got from General Somervell, who urged the launching of such a project, and he said that was a very major undertaking.

Perhaps some will say that we should have done that a year or two ago. If any Army officer a couple of years ago had said, “I want \$15,000,000 to lay out possible camps,” I submit that they would have made short shrift of him.

The CHAIRMAN. Mr. Secretary, if he had been able to convince the Congress that he could save a hundred million dollars by doing it, don't you think he would have gotten the money?

Mr. PATTERSON. Two years ago?

The CHAIRMAN. Yes.

Mr. PATTERSON. No, sir; they would never have done it. Why, they would have said that it was fanciful that we should have an Army of 1,400,000. They would have wanted that officer looked into as to his ability and capacity.

Senator BREWSTER. Isn't it evident from the testimony here that the Army did not correctly estimate what the Congress might be prepared to do?

Mr. PATTERSON. I don't follow you there.

Senator BREWSTER. I understood that both you and the Secretary testified that the Army couldn't have contemplated that the Congress would ever make provision for such an army as is now in process, that that is why they didn't formulate plans, because they couldn't imagine that they would ever do it. Isn't that the testimony?

Mr. PATTERSON. I haven't testified to that effect.

Senator BREWSTER. Didn't that appear in the Secretary's statement?

Mr. PATTERSON. I don't recall.

Senator BREWSTER. I thought that, very generally, had been the answer of the Army as to why plans had not been formulated.

Mr. PATTERSON. I think plans were formulated. Certainly the supply services planned, to my knowledge, to the greatest detail, the Ordnance, Quartermaster, and Signal Corps.

Senator BREWSTER. I am addressing myself now to cantonments.

Mr. PATTERSON. I believe the plans were made there, too, but I haven't the thorough knowledge of that that I have of the supply services. I admit that.

Senator BREWSTER. Do you mean that any sites had been considered?

Mr. PATTERSON. Yes, sir; I think so.

Senator BREWSTER. And the approximate size of what would be required?

Mr. PATTERSON. I can't go into the details of that, because that is on the General Staff side. I know some of it, but I don't know enough to answer you with any assurance.

Senator BREWSTER. That would be under the Plans Division, who will later testify, would it? ¹

Mr. PATTERSON. Undoubtedly.

Senator BREWSTER. They will be here?

Mr. PATTERSON. I have no doubt they will.

Senator BALL. You mentioned that in an effort to get these contracts out to small concerns, the Department authorized a cash advance of 30 percent of the contract.

Mr. PATTERSON. The legislation last summer authorized the War Department to advance not to exceed 30 percent of the contract price to contractors upon such security as the Secretary might direct, and we have done quite a business in advancing funds under that authority.

Senator BALL. That is before they begin producing?

Mr. PATTERSON. Yes, sir.

Senator BALL. To enable these small fellows to buy the material they have to buy.

Mr. PATTERSON. Some of the big fellows come around for that advance, too.

Senator BALL. In your conclusion, Mr. Secretary, you mentioned that we are gradually building up toward mass production, but that a drag in any single indispensable part may delay assembly of the completed unit.

Mr. PATTERSON. That is a very serious problem.

Senator BALL. It occurred to me that in view of that fact, measuring these production stoppages due to strikes or anything else simply by stating the number of man-days lost really gives you no accurate measure of what it is doing to the defense program.

Mr. PATTERSON. What you say is exactly right. That is true. You may have a company with only 200 men out, but that could be in some part of an airplane that would have a disastrous effect on the whole program.

Senator BALL. Like this Allis-Chalmers strike which held up the generator turbine for the powder plant at Roanoke.

Mr. PATTERSON. That was a very serious strike.

Senator BALL. It stopped not only Allis-Chalmers, but this other project.

Mr. PATTERSON. Yes, sir.

Senator BALL. I assume that we will have somebody from the Department who can give us that kind of picture on what these labor disputes have meant.

¹ For discussion of selection of camp sites see, *infra*, pp. 197-205, 210-233, 253-264.

Mr. PATTERSON. I can give you a fair picture of it.

Senator BALL. How much has it held up critical items? For instance, on this Flying Fortress, Boeing has 345 subcontractors. Presumably a strike in one of those subcontractors might affect only a few men, but if the parts stop, they can't assemble the plane.

Mr. PATTERSON. That is true if it is the single source of supply, and it is in some cases. The problem of the flow of materials into the assembly line is a very serious problem, and any checking of the flow of one of those elements is not good at all.

Senator BALL. Well, you can give the committee a picture on that side of this, what they have done.

Mr. PATTERSON. Of course, it is rather hard to give a complete picture of it. I know a good deal about it myself. I think Mr. McGrady would know better.

Mr. McGRADY. I think, Senator, we will be able to supply you a graphic picture of that situation.

Senator BALL. Fine.

The CHAIRMAN. We expect to have Mr. McGrady on.

Mr. FULTON?

Mr. FULTON. No questions.

The CHAIRMAN. Thank you, Mr. Secretary, for your courtesy—

Senator BREWSTER (interposing). Just a moment, Senator, I want to ask him a question.

The CHAIRMAN. Proceed.

Senator BREWSTER. In what way do you coordinate your production progress with that of the Navy and the proceedings under the lend-lease bill?

Mr. PATTERSON. With the Navy, the programs are coordinated through the Army and Navy Munitions Board, which has been in operation for a good many years. That Board establishes priorities between military items and naval items, not the general priorities, of course, that affect the civilian population, which is the priorities system in the Office of Production Management. But that Board agrees upon the relative importance of, say, small arms ammunition with the naval-destroyer program. That coordinates the program so far as urgency is concerned of equipment.

Senator BREWSTER. Does that also take up the question of the geographical allocation and questions of that sort?

Mr. PATTERSON. Yes, sir. I was just about to say that they also have a great deal to do with the allocation of productive facilities to one service or the other service, and then, of course, if they allocate something to the Army, the planning branch in my office traces it down and allocates it either to the Ordnance or the Quartermaster, or something of that sort. They have a great deal to do, too, with the machine-tool situation in the Munitions Board.

Senator BREWSTER. Coming to your question of the proceeding under the lend-lease bill.

Mr. PATTERSON. That has not been thoroughly worked out, but the outlines are there. The proposition there is that the borrower, the borrowing nation, will state what it needs. The Board is to cover both the Army and the Navy.

Senator BREWSTER. Has that Board been set up?

Mr. PATTERSON. Yes, sir; and we have our representatives on it. General BURNS, of my office, represents the Army on that Board.¹ They will transmit the needs.

Senator BREWSTER. How large is that Board?

Mr. PATTERSON. Well, I can't say.

Senator BREWSTER. Who is chairman of it?

Mr. PATTERSON. I think Mr. Hopkins.

Senator BREWSTER. That is the Hopkins Board?

Mr. PATTERSON. I think so.

Senator BREWSTER. Was that recently created, or was that done hitherto?

Mr. PATTERSON. I think it was formally created yesterday or the day before.² I don't know that the whole thing has been announced, but that is the nature of it. They will state the needs to the War Department, the War Department will pass it to the particular service involved—Ordnance, say, if it involves something in the armament line, or Air Corps, if it involves aircraft. They will have to fit that into our own requirements. The service will go ahead and place the order just as if it were our own order and destined for our own Army, and then on final production will come the decision as to how much of that order is to be released and loaned, or lent, or leased. Until that point is reached, of course, the material is our own material.

Senator BREWSTER. Now, in the actual placing of orders, you follow the same procedure with relation to the Office of Production Management?

Mr. PATTERSON. Yes, sir.

Senator BREWSTER. That is, you clear through them on any substantial item?

Mr. PATTERSON. That is right.

Senator BREWSTER. But in your initial request as to possible material, that will come through Mr. Hopkins?

Mr. PATTERSON. Yes. Of course, the Office of Production Management will play a very important part in this program because they are the people who are primarily to say what the productive facilities of this Nation can take.

Senator BREWSTER. Is there an Executive order as yet covering the creation of this new committee?³

Mr. PATTERSON. Well, I saw it in the newspaper that there was. I have been up here the last couple of days, and I haven't really read it.

Senator BREWSTER. Is there anyone in your group informed regarding this?

Mr. PATTERSON. I can't say. Mr. McCloy would know, I think, but he isn't here.

Mr. PETERSEN.⁴ It hasn't been definitely crystallized.

Senator BREWSTER. As soon as that is available, will you supply it to us? It is a matter which I think enters very materially into your

¹ Mr. Patterson has reference to an informal body, in process of formation at the time of his testimony. Later an Executive order, dated May 2, 1941, created the Division of Defense Aid Reports in the Office of Emergency Management.

² Ibid.

³ Ibid.

⁴ Howard C. Petersen, special assistant to the Under Secretary of War.

picture, and as soon as it is available I think we will be glad to have it in our records.

Mr. PATTERSON. Yes, sir.

Senator WALLGREN. How do the prices we are paying today compare with the prices paid during 1917 for material? Is there any way of figuring that?

Mr. PATTERSON. Oh, it could be determined well enough. There is no question about that. I haven't made the comparison myself. I think the Secretary mentioned yesterday that on certain things we had to pay much higher prices on account of the greater complexity of the thing—like airplanes. I haven't studied that myself.

Senator WALLGREN. What about the civilian supplies and clothing? Do you know what the comparison of prices on that would be, as to what they are today and what they were in 1917?

Mr. PATTERSON. I don't know. On those ordinary items, of course, the index will show relatively close just what we are doing.

Senator WALLGREN. We will take that up later.

Mr. PATTERSON. The procurement of clothing, shoes, and blankets, and all of the subsistence items is under the Quartermaster Corps. They have been very greatly assisted by the Advisory Commission, and now by Mr. Nelson's section in the Office of Production Management. These men are skilled buyers, with long years of experience, and the Quartermaster Corps has welcomed their aid, and they have been of very material help.

Senator WALLGREN. Are you worried particularly about any particular strategic material?

Mr. PATTERSON. Not in the Quartermaster Corps staff; no. That program is up to schedule and ahead of schedule. We have had no difficulty at all in the regular routine requirements like clothing, shoes, socks, caps, overcoats, blankets, and so on. We have had no trouble at all supplying the troops as they come into the field. We are ahead of schedule on almost all Quartermaster Corps items.

Senator WALLGREN. How about, let's say, strategic minerals, metal?

Mr. PATTERSON. Yes. Of course, on the basic raw materials, that is more over in the production branch of the Office of Production Management than it is with us. We don't buy those things directly. They do enter very importantly, of course, into the products that we do buy. The planning branch of my office has activities along that line in co-operation with the Office of Production Management.

The CHAIRMAN. I think Mr. Knudsen can answer that for us.

Mr. PATTERSON. Yes; that is his line.

The CHAIRMAN. I want to thank you again, Mr. Secretary.

The committee will meet tomorrow at 10:30. The Secretary of the Navy will be the witness. The committee is adjourned.

(Whereupon, at 12:15 p. m., the hearing recessed until 10:30 a. m., Thursday, April 17, 1941.)

INVESTIGATION OF NATIONAL DEFENSE PROGRAM

THURSDAY, APRIL 17, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE TO INVESTIGATE
THE NATIONAL DEFENSE PROGRAM,
Washington, D. C.

The committee met at 10:35 o'clock a. m., pursuant to recess on Wednesday, April 16, 1941, in room 318, Senate Office Building, Senator Harry S. Truman, presiding.

Present: Senators Harry S. Truman (chairman); Mon C. Wallgren, Carl Hatch, Joseph H. Ball, Ralph O. Brewster.

Also present: Hugh A. Fulton, chief counsel, Charles P. Clark, associate chief counsel of the committee.

The CHAIRMAN. The committee will come to order.

Mr. Secretary, you may proceed.

TESTIMONY OF HON. FRANK KNOX, SECRETARY OF THE NAVY

Secretary KNOX. Mr. Chairman, I have prepared a statement which is in your committee's hands, and in the portion which I will read to you I have eliminated the statistics.

The CHAIRMAN. That will be perfectly satisfactory, but the statistics will still go into the record?

Secretary KNOX. Yes, sir. May I proceed?

The CHAIRMAN. Proceed.

Secretary KNOX. Mr. Chairman and gentlemen of the committee, I wish to say, first of all, that I was most happy to learn of the organization of this committee to investigate the national-defense program concurrently with its execution. Certainly you gentlemen are as vitally concerned with its success, as we who are charged with its actual formulation and execution. I look upon myself as a trustee, charged with the duty of administering the funds appropriated by Congress. I am glad to report back to the Congress and give an account of the progress of the Navy program. The Navy is prepared to cooperate with your committee to the fullest extent, and will make available its records and personnel.

The CHAIRMAN. Thank you, Mr. Secretary.

Secretary KNOX. An investigation at this time is bound to be fair, since it will be conducted in the same environment, and under the same conditions as we are working. In an investigation long after the emergency, the present climate of speed and urgency would be lost, and certainly no investigation of this program could be complete without a full appreciation of these factors. The Navy Department

has constantly kept in mind the imperative necessity of speed and still more speed in securing the earliest possible delivery of essential defense items. This will continue to be the controlling principle in the Navy's expansion program, for a day or a week saved now may later represent months gained in the most critical period of the country's life. I will now attempt to give you a brief summary of the Navy prior to the present emergency and also an outline of the progress of measures taken to meet that emergency.

STRENGTH OF U. S. NAVY PRIOR TO THE EMERGENCY

Secretary KNOX. The actual size of the United States Navy in combatant under-age vessels was regulated by disarmament treaties on a 5-5-3 ratio with Britain and Japan from 1922 for battleships and aircraft carriers, and from 1930 on a 10-10-7 ratio for aircraft carriers, cruisers, and destroyers, and a 1-1-1 ratio for submarines until December 31, 1936. The treaties prescribed that by December 31, 1936, their expiration date, the Navy should not exceed the following tonnage by classes:

Original treaty allowances (1922-30)

	Number of ships	Tonnage
Battleships.....	15	525,000
Aircraft carriers.....	16	135,000
Cruisers A (8-inch caliber guns).....	18	180,000
Cruisers B (6.1-inch caliber guns).....	17	143,500
Destroyers.....	197	150,000
Submarines.....	137	52,700

¹ No limit to number of ships allowed.

During the period from 1922 to 1936, 122 vessels were laid down, of which 85 were laid down in 1934, 1935, and 1936.

In 1934 the Vinson-Trammell Act was passed, which established the authorized strength of the Navy at the treaty totals cited above plus certain escalator tonnage resultant from treaty provisions.

Since that date, three expansion acts have been passed, increasing the combatant size of the Navy: (a) The 20 percent Expansion Act, designed to maintain our relative strength near the 5-5-3 ratio; (b) the 11 Percent Expansion Act, obtained after the Munich crisis to strengthen and round out the fleet; (c) the 70 Percent Expansion Act, to meet the two-ocean threat.

The CHAIRMAN. When was the 20 Percent Expansion Act passed, Mr. Secretary; do you remember?

Secretary KNOX. Let me see. I will get that. I think it is cited in the statistics in the report. The date is given.

The CHAIRMAN. All right, proceed.

Secretary KNOX. The last two acts, passed June 14, 1940, and July 19, 1940, respectively, were appropriated for in titles III and IV of the 1941 Appropriation Act, and are part of the current rearmament program. I will place in the record four tables: (1) The vessels laid down since 1922; (2) the authorized expansion tonnage details since 1920; (3) the authorization acts for ship construction since 1934; and (4) the authorization acts for aircraft construction since 1938.

(The tables referred to were marked "Exhibits Nos. 3 to 6" and are included in the appendix on pp. 355-357.)

Secretary KNOX. The shipbuilding and munitions industry declined steadily during the period 1920 to 1936. The decline is best indicated by the table I now place in the record, showing the Navy bills during the period, with a break-down into general purpose headings, and that table is inserted in the record.

(The table referred to was marked "Exhibit No. 7" and is included in the appendix on p. 357.)

Secretary KNOX. No battleships were laid down after the World War until 1937. The *Colorado* and *West Virginia*, the last built, were completed in 1923. From 1919 to 1930 the Bureau of Ordnance placed no orders for armor. In the latter year, contracts began to be placed for light armor for the cruiser program. The total amount of business of the armor manufacturers, Carnegie, Midvale, the Bethlehem, during the period 1920 to 1936 was, however, very small. The Navy armor plant at Charleston, W. Va., was closed; the Alexandria torpedo factory closed. The Navy still operated the torpedo station, Newport, R. I.; also the Indian Head powder factory. Powder orders were divided with du Pont to keep that company producing some Navy powder.

Naval ship construction orders given to the private shipbuilding industries from 1929 to 1933 totaled only 19 units, divided among Bath, Bethlehem, Fore River, New York Shipbuilding Co., Camden, Newport News, and Electric Boat Co., which companies were then the remaining military building yards, and who still were hanging on in the shipbuilding business, attempting to survive.

I place in the record a table showing the type of construction carried on by the major shipbuilders and an interesting comparison of the vessels they are building now compared to those under construction on July 1, 1939.)

(The table referred to was marked "Exhibit No. 8" and is included in the appendix on p. 358.)

Secretary KNOX. The story as to munitions and aircraft firms was much the same.

The aircraft industry was being carried along by the Army and Navy, through distribution of procurement orders as much as possible, with the hope that the rise of commercial aviation would soon carry that industry. The Vinson-Trammell Act had authorized the Navy aircraft commensurate with the treaty Navy, and this number had been estimated by the Navy as 2,050, with the vessels then in hand. The aircraft on hand, through these fiscal years, is shown in the following table:

1924-----	¹ 548	1931-----	950
1925-----	¹ 513	1932-----	960
1926-----	351	1933-----	919
1927-----	468	1934-----	936
1928-----	624	1935-----	973
1929-----	829	1936-----	955
1930-----	873		

¹ On hand and on order; includes experimental planes.

The revival of the shipbuilding industry occurred in 1934. An allotment was made to the Navy of \$238,000,000 of N. I. R. A. funds for the

construction of 32 vessels. In 1935 an additional \$25,050,333 was made available for commencing 20 additional vessels—14 destroyers and 6 submarines. All of the foregoing were replacement vessels. From that time on, the tempo of construction was stepped up, so as to reach a treaty total of under-age vessels by 1945. Congress did not authorize the replacement of battleships, despite the request of the Navy Department, until the passage of the Naval Appropriation Act, 1937, when two were commenced. Two more were laid down in the Naval Appropriation Act, 1939, two in the Second Deficiency Act of 1938, two in 1940, and two in the 1941 regular act.

EMERGENCY NAVAL EXPANSION PROGRAM

Secretary KNOX. The present accelerated emergency program began in September 1939. On September 3, Great Britain declared war on Germany. The President of the United States immediately issued a declaration of neutrality, followed on September 8 by Executive Order No. 8245 applying to the Navy. The effect of the Executive order was to increase the enlisted strength, to establish the neutrality patrol in the Atlantic, necessitating the commissioning of 80 emergency vessels and the preparation for commissioning of an additional 40 vessels. The Navy obtained \$137,172,238 in the 1940 Emergency Supplemental Appropriation Act to carry on the program.

The bulk of the emergency funds were obtained in the fiscal year 1941. I will merely list the titles and the purpose for which they were obtained:

Title	Amount	Purpose
I-a-----	\$934,369,637	Regular expenses for 1941.
I-B-----	80,396,091	Emergency funds to carry on expansions projected in the 1940 emergency supplemental.
II-----	476,153,922	Speeding up of naval construction of ships and aircraft.
III-----	688,287,170	To carry out provisions of 11-percent Expansion Act and commission 35-old destroyers, 35 submarines, and 4 destroyer tenders.
IV-----	1,106,383,860	To carry out 70-percent Expansion Act.
V-----	83,901,000	Additional defense facilities.
VI-----	838,846,877	Mobilize the Reserves, operating facilities for 2-ocean Navy, personnel facilities, secret devices, 50 additional destroyers.

Direct appropriations and contract authority in the fiscal year 1939 were \$638,526,194; 1940, \$1,041,206,349; 1941 to date, \$4,503,755,377; appropriated for in seven titles. The actual obligations will be in excess of these direct appropriations and contract authority because the cost of ships and public works are obligated at contracts for full cost although funds are appropriated only to carry on the program during the current year. In fiscal year 1939 we obligated \$1,030,161,684; in 1940, \$1,049,498,257; and in fiscal year 1941, according to the last Treasury Form B, as of March 1, \$7,406,117,826. These obligations, of course, include the maintenance and operation totals in addition to what might be called contract items.

The Navy contracted for the following numbers of vessels, large and small, during the fiscal years indicated:

Fiscal year:	Number of vessels
1939-----	76
1940-----	23
1941-----	629

In September 1939 the number of ship builders who had major Navy contracts was 6. In the current year this number has increased to 38.

In general it may be said that practically every ship that is under construction is ahead of schedule. Those that are being delivered are several months ahead of their contract.

The total tonnage of combatant type vessels under construction July 1, 1940, was 823,335 tons, and on April 12, 1941, is 2,226,950 tons. The total tonnage of auxiliary-type vessels under construction July 1, 1940, was only 74,938 tons, and on April 12, 1941, is 282,507 tons.

The total value of vessel contracts and orders placed since July 1, 1940, is \$4,476,412,021.

The total number of employees working at the major private ship-building yards and in the navy yards as of July 1, 1940, was approximately 74,000. In April 1941 this number had increased to approximately 143,000.

It may be of interest to note that, under the direction of the Secretary of the Navy, on January 15, 1941, a system of training schools has been established, with a unit in every private and navy shipyard, for the development of skilled employment to expedite the construction program to the maximum degree.

Generally speaking, nearly all navy yard work is being done on a three-shift basis at the present time. It can be further said that the first shift is on a 48-hour-week basis with the second and third shifts rapidly being stepped up as far as practicable and economically sound to a similar basis.

I would like to interrupt myself here to clear up a problem of misconception. We find in actual operation that a third shift is quite frequently a very unproductive shift. It is carried on in the middle of the night, and we haven't found that it was very effective. So what we have done in a large measure has been to use a third shift on that particular kind of activity in the given shop or yard where there was a bottleneck. We have driven for a third shift in those places where the operation of additional work was especially necessary and depended for our major production on the two—first and second—shifts.

Every effort is being made to increase the size of these shifts. This applies not only to the prime contractors but also to the subcontractors. In contrast, prior to the emergency the entire shipbuilding industry was on a 5-day 40-hour-week basis.

Various plant extensions have been made to meet the requirements of the present program. If future changes in design are made necessary, they may, of course, result in delaying the ships that are already under contract. This is something which cannot be anticipated at the present time.

Probably it is more true in this war than any other war. Actual operations suggest changes in equipment. For instance, I observed, when given an opportunity to look over the latest British battleship, that she had an excess of defense against air, far more than had been thought necessary at the time we laid down our ships that are now coming off the ways. I use that as a mere illustration of the way the active operation of the war may change the details of design.

In regard to the future difficulties, there are a number of materials that may cause a hold-up of production in the future. These are: (1) Structural steel; (2) aluminum; (3) and probably the most important of all, steel forgings; (4) armor deliveries.

Munitions makers were increased when the emergency was declared. There were 28 private companies producing ordnance materials on September 8, 1939. In this year to date the Navy has 93 munition and ordnance contractors under major contracts.

The following tabulation indicates the number of planes contracted for during the fiscal years 1939 to date :

Fiscal year :	<i>Number of planes</i>
1939-----	208
1940-----	840
1941-----	6, 038

The program of airplane expansion calls for 15,000 planes.

The problems of the Navy were many. The shore establishment of the Navy required expansion to meet the needs of the enlarged fleet. Facilities were required to train pilots and operate aircraft, including the construction of new air bases at many strategic locations beyond the continental limits of the United States, notably in islands of the western Pacific, Alaska, and in the newly acquired leased sites in Newfoundland, Bermuda, and the British West Indies.

Beginning with the act of June 11, 1940, and up to March 15, 1941, approximately \$525,000,000 in contract authorizations for public works was made available. Of that amount, 90 percent has been placed under contract with the work approximately 55 percent completed. The Fourth Supplemental Defense Act and subsequent authorizations have made \$200,000,000 additional available which will be placed under contract before the end of the present fiscal year.

Construction work has proceeded with rapidity. Sites which were without any improvements 10 months ago are today operating air stations. The training capacity of our air stations has been increased to thousands of pilots each year. Additional stations will be in operation before midsummer. The expansion program has pushed forward the line of defense in the Pacific by additional operating air bases which will be placed in commission between late summer and December. The new dry docks and ship overhaul facilities now being built will greatly increase the capacity of yards on both the Atlantic and Pacific to care for the fleet overhaul work and permit construction of the larger battleships which, because of their size, can only be built in Government yards.

Now, as to the increase in Navy and Marine personnel.

Regulars: On June 30, 1939, officers and enlisted men totaled 120,000. This is divided into officers, 10,000; enlisted men, 110,000.

March 31, 1941, officers and enlisted men 205,000. (Officers 10,000; enlisted men 195,000.)

Reserves: March 31, 1941, approximately 50 percent of the Naval Reserves have been called up, totaling approximately 35,000.

Thus the Navy personnel has been doubled since June 30, 1939. It has increased from 120,000 to 240,000.

On June 30, 1939, the strength of the Marine Corps totaled 18,000. On March 31, 1941, it totaled 47,000, or an increase of over 150 percent.

PROCUREMENT BY NEGOTIATED CONTRACTS

Secretary KNOX. Prior to the present emergency all major purchases for the Navy were made on competitive bids in accordance

with statutory requirements. This procedure functioned satisfactorily under normal conditions when time was not of importance and when ample productive capacities were available. It was not adaptable to the speed required by the emergency nor to a rational plan to utilize effectively the industrial resources of the Nation. Consequently, the Navy requested authority to negotiate contracts so that orders could be quickly placed with the various manufacturers, shipbuilders, and other contractors in a manner which would permit of the fullest possible utilization of productive capacities.

On June 28, 1940, a bill was passed, commonly referred to as the "Speed Up" Act. On June 29 the President, pursuant to the authority of the "Speed Up" Act authorized the Secretary of the Navy under present conditions—

to negotiate contracts for the acquisition, construction, repair, or alteration of complete naval vessels or aircraft, or any portion thereof, including plans, spare parts, and equipment therefor, that have been or may be authorized, and also for machine tools and other similar equipment, without advertising or competitive bidding.

Such authority not only saved the time required for detailed planning by competitive bid system, but most important of all, it permitted the most efficient use of the available economic resources.

Of course, the possibilities of abuse of the negotiating privilege were recognized and in order to guard against any such possible abuses the Acting Secretary of the Navy on July 5, 1940, issued a letter to all bureaus and offices of the Navy setting forth the principles and procedure to be followed by the Navy in using the authority to negotiate.

Here we place in the record copies of the President's letter of June 29, 1940, and the Acting Secretary's letter of July 5, 1940.

(The letters referred to were marked "Exhibits Nos. 9-A and 9-B" and are included in the appendix on pp. 359 and 360.)

Secretary Knox. Negotiated contracts, in general, are of two types, fixed-price contracts and cost-plus-a-fixed-fee contracts. When performance of fixed-price contracts may extend over a considerable length of time, provision for the increase or decrease of contract prices in accordance with the increases and decreases in the cost of labor and materials is generally included.

Prices to be paid by the Navy Department under fixed-price contracts are carefully checked and examined to assure that they are not excessive. The responsible naval officers frequently obtain price quotations from several firms so that they will have a comparative picture. These prices are compared if possible both with prices paid to the same and to other firms and with the cost of producing similar items in the Army and Navy arsenals. The officers also determine what they consider to be a fair price on the basis of their knowledge of costs in the particular industry. If the proposals of the prospective contractors do not meet these tests or if the particular article has not been manufactured before, they are then compelled to break down the proposed prices into its component parts and to justify the inclusion of every item of cost and the amount thereof. The cost-plus-a-fixed-fee contracts are drawn so as to give the contractor incentive to make the cost as low as possible. The fees to be paid under cost-plus-a-fixed-fee contracts are specified at the time the contracts are executed on the basis of the estimated costs, and for

ship construction practically all contracts provide that the contractor's fee is increased within certain specified limits in the event that actual costs are less than the original estimated costs. If the actual costs are greater than the estimated costs, the maximum fee is determined on the basis of the estimated cost. The costs under these contracts are determined either by the Compensation Board or by the Bureau of Supplies and Accounts of the Navy Department on the basis of careful checks and audits, and the work is thoroughly inspected by representatives of the Navy Department. In these ways a careful and thorough check is kept on the prices paid by the Navy. Of course, the necessity for speed, the shortage of skilled labor, and the contingencies present when a manufacturer is undertaking the production of a highly technical and complicated article for the first time or a new type of combat ship is being constructed will necessarily and justifiably result in a higher price than would be paid under normal conditions.

The duties of procurement and contracts are allocated to the Under Secretary, Mr. Forrestal, who, upon his return from England, will be glad to testify in detail.¹ I suspect he will be back in about 3 weeks.

The CHAIRMAN. We will be glad to have him come before the committee when he comes back.

Secretary KNOX. I think he will be back two weeks from now.

PLANT EXPANSION PROGRAM OF THE NAVY

Secretary KNOX. With respect to the placement of Navy contracts, comment has been made that the great portion of these have gone to old line, established business companies. To a large extent this is true, and for good reason. If you want something in a hurry, you go to the man you know can make it quickly and right. Only when he is booked to capacity do you go to the next best.

So with the Navy. It was called upon to expand, expand quickly. Very naturally it went to its known suppliers and took advantage of their established facilities, skill, and experience.

In the early years and before commencement of the current expansion, contractors came to Washington seeking business. It was a buyers' market. Today the situation is reversed. All usual contractors for the Navy are booked to capacity. Additional productive facilities must be sought or constructed. At first the demands of speed and efficiency made it advisable to enlarge those plants where there was already proven productive capacity. This plan took advantage of the administrative skill and experience of established companies and caused less dilution of skilled labor and machinery.

For example: Pratt & Whitney Aircraft Division.

A typical situation with regard to the necessity of expansion of already existing plants for early production is in the aircraft engine industry. The Pratt & Whitney Aircraft Division of United Aircraft and the Wright Aeronautical Corporation for the last 10 years have been practically the only manufacturers of engines for combat airplanes. When the question of expansion arose, it was considered that the only possibility of obtaining additional engine deliveries

¹ James V. Forrestal, Under Secretary of the Navy, appeared before the committee on June 12, 1941.

within any reasonable period, even a year, was by the expansion of the facilities of companies already in the business, since they were the only people who had sufficient engineering and production knowledge and experience to produce so quickly. It was also considered that these facilities should be furnished (1) by expansion of the existing plant as much as practicable within reason and (2) additional branches of the parent company in other localities. These conclusions were arrived at by the advisory Commission to the Council of National Defense in conferences with the representatives of the Air Corps and the Bureau of Aeronautics.

It was then decided, for purposes of simplicity in administration, that the Army would sponsor and execute all plant facility and supply contracts in connection with Wright Aeronautical for both the Army and Navy; and likewise, that the Navy would do the same for Pratt & Whitney. The sponsorship was determined on the basis of primary interest in each case. All subsequent contracts for plant expansion, however, were agreed to by both services and approved by the Office of Production Management as to the size and location. In the case of Pratt & Whitney, the expansion was relatively of such small proportion that the management felt it could be much better handled and integrated at the Hartford plant and this was approved.

On the other hand, when it later appeared that additional capacity for Pratt & Whitney type engines was necessary, it was decided to induct the Ford Motor Co. and the Buick Motor Co. into the manufacture of Pratt & Whitney engines on a license basis in new plants which are now under way at Dearborn, Mich., and Chicago, Ill., respectively. Therefore, in effect, the manufacture of Pratt & Whitney engines has been distributed geographically.

That the decision to make the immediate expansion at the plant of the Pratt & Whitney Aircraft Division at Hartford was sound is shown by the fact that the original expansion approved is now in operation and producing additional engines at a rate considerably in excess of that predicted, whereas the facilities authorized for Ford and Buick but a short time later will not start to produce engines for many months to come.

I noticed in the press yesterday that Pratt & Whitney expect to produce at the rate of 1,780,000 horsepower by the 1st of July—a tremendous expansion, I think—about two or three times their original production at that one plant.

In the \$7,000,000,000 defense-aid bill the Navy was tentatively allocated a total of \$801,000,000 for which at that time requests for British material were available. While the details of the material we are supplying them are more or less secret in character, the following is pertinent. As of April 14, we have already received allocations from the President for \$128,963,000, and we have requested allocations for \$272,422,000 additional.

Senator WALLGREN. Mr. Secretary, at that point does that mean that \$128,963,000 worth of naval material has already gone to Britain?

Secretary KNOX. Well, it is on its way. I don't know as to the exact place, it is in the crossing. It has been ordered shipped, and it depends, I presume, on the available shipping, and so forth.

Furthermore, we are almost daily making issues to the British of material in stock which, in accordance with the terms of the act, is a charge against the limitations of prior appropriation issues.

PRE-EMERGENCY STORIES OF STRATEGIC MATERIALS

Secretary KNOX. In the years beginning 1936, 1937, the Department realized the importance of obtaining a reasonable stock of strategic and critical materials, and to that end there were presented to the Bureau of the Budget and to the Congress requests for funds for that purpose. No moneys were approved by the Congress until the year 1938, when an appropriation was made that permitted the Navy to obtain a small stock of critical materials including tin, chrome, ferromanganese, tungsten, optical glass, manila fiber, quartz crystals, etc. The importance of having available critical and strategic materials was illustrated recently when the steel industry, engaged in national-defense work, was threatened with a shut-down due to the lack of refined tungsten. The Navy was able, through release of its stock of tungsten and its distribution to certain critical plants, to prevent this threatened shut-down. In subsequent years the Congress has appropriated and made available large sums of money to the Procurement Division of the Treasury Department and the Reconstruction Finance Corporation for the purpose of laying in large quantities of similar materials not produced in this country. Therefore, the necessity for appropriating separate amounts to the Navy for this purpose is no longer apparent.

In conclusion, I have tried to give you in broadest summary some idea of the magnitude of the problem that confronted the Navy at the beginning of the emergency, and the prompt and efficient way in which various phases have been dealt with. You will see the picture more in detail when the chiefs of the various bureaus and their assistants testify on specific matters. The over-all picture which I wish to leave with you is one of reassurance and optimism.

Of course I recognize that in any investigation after the fact things can be found to criticize.

You may feel that certain methods of procurement do not conform to the most up-to-date techniques of private business; you may find some contractors have made undue profits, which private business safeguards of checking and cross-checking would have precluded. In short, you may find that we have made mistakes of costs or methods, but there is one mistake that we will not make, and that is we will not fail to have our two-ocean Navy ready at the earliest possible moment. That is the first and only military objective of the Navy program, and disregarding whatever errors of methods, details, or costs that you may find, we are accomplishing that military objective.

Charges will be made, and stories will persist, but when investigated it will probably be found that they originate because some individuals or even communities have been personally affected. If we view the picture as a whole and judge by the sole test of whether our basic military objective is successfully accomplished in the limited time available, then whether a plant is located in one community or another, cannot be allowed to delay the program.

Possibly some prices have been too high, and if we were a private corporation which must analyze each purchase with a view to the profit on resale, then such prices might be considered mistakes. But the duty of the Navy is to get the supplies, and make them most effective in the shortest time possible.

We have undertaken the largest naval program in history without knowing the date of our dead line. If we knew that date, then it would be a question of subdividing and planning the work so as to reach completion on schedule. But our dead line is always just tomorrow, and we must therefore do as much today as humanly possible. Under such pressure we cannot sit around and theorize on how to reform, when we need something of absolute necessity for our military result. We just have to have it, we are responsible for getting it and it would be a criminal act if we didn't get it.

Whatever constructive suggestions or legislation may result from this investigation will be enthusiastically received and adopted. But I am confident that I voice your unanimous sentiments when I say to you frankly and candidly that neither the misgivings of unsuccessful contractors, nor the fears of honest mistakes will be permitted in this grave hour to delay for a single second the bold and courageous expedition of our program.

Thank you, gentlemen, for listening to me.

The CHAIRMAN. Senator Wallgren, have you any questions?

Senator WALLGREN. Not at this time.

The CHAIRMAN. Senator Hatch?

Senator HATCH. No.

The CHAIRMAN. Senator Ball?

Senator BALL. Mr. Secretary, you spoke about your fixed-fee contracts.

Secretary KNOX. Yes.

Senator BALL. Do you put in a provision giving them an incentive to do the work at less than the estimated cost, if possible?

Secretary KNOX. As I remember the law—I will be ready for correction by men who are more familiar with it than I am—we allow under the fixed-fee contract a 6-percent profit and 1 percent additional for bonus for certain things being done, among which was reduction in cost.

Senator BALL. How has that worked out in actual experience? How have costs run, or have you had enough experience yet to judge?

Secretary KNOX. Yes. Of course, in making up an estimate for a fixed-fee contract we have to go carefully over, first, the expected cost of the material, and in that we have to take into our calculation the possibility of an increase in cost. Then the price of raw material. Then we had to go over the increased cost of labor and add to that possible anticipated increases in the cost of labor. Another factor of great importance was the dilution of skilled labor, because we had only a limited number of skilled shipmen, for instance, and we knew we had to introduce into the various shipbuilding yards a large number of men who would not be accustomed to the business, and we knew that that would reduce the productivity per man-hour. So we introduced the factor of about 10 percent increase due to dilution of labor, and other factors were taken into the calculation. Then the price was fixed at the best possible estimate we could make.

I have not the figures to support this—I am only speaking of this as it would apply to a business—but I suspect that one of the factors that we did not take into consideration was the reduced cost due to the size of the job and the speed-up which we were able to establish, and I suspect that we will find that a good many of these ships and other things are going to be done at a cost less than we estimated.

Happily, if that happens to be true, the undue profits that might result from such a situation are taken care of by the limitation of profits under the excess-profits tax. Again we are getting an illustration of how quantity production can reduce costs. For instance, the administrative cost of a big yard doesn't go up in anything like the proportion that the number of employees may go up, and there are other factors of that sort which may tend to reduce the costs lower than the estimate.

Does that answer your question?

Senator BALL. You bet.

You spoke about the allocation of \$128,000,000 to the Navy under the lend-lease bill, and that they had already requested \$272,000,000 more. Is that out of the \$7,000,000,000 appropriation?

Secretary KNOX. Yes.

Senator BALL. That doesn't represent the transfer of equipment on hand in the Navy under that \$1,300,000,000 limitation?

Secretary KNOX. No.

Senator BALL. I was just wondering whether that meant transfer of the present equipment or new orders.

Secretary KNOX. The allocation of funds was for new orders, but we are transferring items also against the \$1,300,000,000 limitation.

Senator BALL. That is all.

FUNCTIONS OF THE OFFICE OF PRODUCTION MANAGEMENT

The CHAIRMAN. Senator Brewster?

Senator BREWSTER. Under the operation of the Office of Production Management, does your committee, or whatever you call the body, meet from time to time?

Secretary KNOX. Do we meet?

Senator BREWSTER. Yes.

Secretary KNOX. Oh, yes.

Senator BREWSTER. When was your last meeting?

Secretary KNOX. About a week ago, I should think, or perhaps less.

Senator BREWSTER. How frequently do you meet?

Secretary KNOX. There is no regular time of meeting. We are called whenever a situation arises when it is desirable to have action by the whole group. May I say, Senator, that the underlying idea of that O. P. M. organization, I think, has never been adequately publicized. There are three factors that enter into business dealings: industrial operations, management, labor, and the customer, the ultimate customer, the consumer. Of that group, management is represented by Knudsen; labor is represented by Hillman; and Stimson and I are the two customers. We buy the stuff they make, and that was the underlying theory of the organization when it was set up. It operates a great deal like a board of directors.

Senator BREWSTER. Do you consider yourselves an administrative body?

Secretary KNOX. In very many ways; yes.

Senator BREWSTER. How frequently have you met during, let's say, the last 2 months?

Secretary KNOX. Well, I should have to check on that. I should think a dozen times.

Senator BREWSTER. And were those matters of policy or administrative detail?

Secretary KNOX. Largely matters of policy.

Senator BREWSTER. Does Mr. Knudsen necessarily have to handle the administrative end of the situation?

Secretary KNOX. Knudsen functions as the manager of the organization, or president; Hillman specializes in the labor side of the picture; and Stimson and I are called in as a board of directors would be in a corporation, either for advice or for confirmation of things done.

Senator BREWSTER. Do you have a secretary——

Secretary KNOX (interposing). Yes.

Senator BREWSTER. Who keeps records of the meetings and its action?

Secretary KNOX. Oh, yes.

Senator BREWSTER. You realize, I suppose, from your military acquaintance, that the set-up is somewhat in conflict with the studies of the War Department.

Secretary KNOX. Senator, it may seem in conflict with them. In the military, of course, the unit of command is fundamental, but this isn't military—this is industrial, business. It is in complete harmony with the practice in business.

Senator BREWSTER. Is it?

Secretary KNOX. Oh, yes, indeed.

Senator BREWSTER. Where do you find such a distribution of the functions in any business organization?

Secretary KNOX. In my own office.

Senator BREWSTER. During a recent period I know you instituted a committee of three trustees, but I have never appreciated before that you were not the complete boss. Isn't that so?

Secretary KNOX. Any head of a corporation of any size who regards himself as the complete boss of it is either kidding himself or he is heading his organization for disaster.

Senator BREWSTER. In industrial organization, isn't it customary to have a responsible executive with a board of directors?

Secretary KNOX. Almost always, I think.

Senator BREWSTER. And that analogy certainly would apply to the Office of Production Management.

Secretary KNOX. Yes; I think it exactly compares.

Senator BREWSTER. Who would be the responsible executive?

Secretary KNOX. Knudsen.

Senator BREWSTER. And the other three members would be analogous to the board of directors as an advisory body?

Secretary KNOX. He would also be a member of the board of directors.

Senator BREWSTER. Yes. You drew a distinction between military and industrial. Have you taken occasion recently to review the studies of the General Staff of the Army regarding industrial procurement in periods of emergency?

Secretary KNOX. I haven't had time to do it; no, sir.

Senator BREWSTER. Well, that has been going on for 20 years, since the last war, based on that experience and all developments since that time. In the last issue of the War Department's recommenda-

tions regarding a War Resources Administration, in 1939, they made it emphatically clear that everything indicated that in a period of emergency—and I presume you would recognize this as such—

Secretary KNOX. Yes.

Senator BREWSTER. There should be one administrative head to handle procurement, with an advisory board, such as you have constituted, of industrial and Government representatives. Why should you distinguish this current situation from those considered conclusions resulting from a study of 20 years?

Secretary KNOX. Well, I think either method if it works—the principal thing is, does it work? This works, so I am perfectly happy over it.

Senator BREWSTER. Are you familiar with the Stettinius report and study?

Secretary KNOX. No; I did not read that.

Senator BREWSTER. You have never seen it?

Secretary KNOX. I have seen it, but I did not read it. I have read perhaps a few pages. Do you mean the one made by the first board created by Louis Johnson?

Senator BREWSTER. Yes.

Secretary KNOX. I did not read it all.

Senator BREWSTER. We have been given generally to understand that its conclusions pointed in the same direction of a responsible head of procurement. Do you know whether or not that was correct?

Secretary KNOX. I do not.

Senator BREWSTER. Your justification of this multiheaded administrative body, as I understand it, is simply on the ground that at the present time it works?

Secretary KNOX. May I make a general observation?

Senator BREWSTER. Yes.

Secretary KNOX. This is a general statement, not dealing with this particular situation alone—a general statement. When you are dealing with public matters, you cannot deal wholly as you would with a general business situation where there is private operation. You have to take into calculation other factors—public opinion, public support for a proposal, and things of that character—and I think, in the light of the actual condition of public opinion at the time, that this was a happy solution, and best of all, it works, as I said before.

Senator BREWSTER. You would not distinguish the situation on the ground that our emergency was not now sufficiently critical to require the institution of this program?

Secretary KNOX. I recognize this is a very, very grave emergency, but I do not think any change in the character of the O. P. M. to a one-man outfit would change the results a particle now.

Senator BREWSTER. I appreciate what you say there, and I appreciate the imponderables of which you speak in public administration. What was your experience with the Advisory Commission of the Council of National Defense, and your observations?

Secretary KNOX. I did not have very much experience with it. It was an advisory body, without any executive authority; wholly advisory in character, and I was so darned busy getting started in the Navy Department during its lifetime I have had very few contacts with it.

Senator BREWSTER. Did you favor a change in the set-up?

Secretary KNOX. Oh, yes. You mean from that to the one we now have? Very much so.

Senator BREWSTER. You felt strongly about it?

Secretary KNOX. Very strongly about it.

Senator BREWSTER. That the commission was not in a position to render the service which was imperatively required?

Secretary KNOX. Quite right.

Senator BREWSTER. That was both because of its rather large membership—

Secretary KNOX (interposing). And wholly advisory.

Senator BREWSTER. It did have some veto powers, did it not?

Secretary KNOX. I think only on some very minor matters like selection of sites and approval of contracts after they were made, and things of that sort, and had something to do with certifying for taxing purposes, certain depreciation charges. That is within their legal functions still.

Senator BREWSTER. Now, what is the system for coordinating procurement among the Army, the Navy, and the lend-lease authority?

Secretary KNOX. It is very simple. Contracts for all are cleared by same machinery in Department and O. P. M. In addition there is an Army and Navy Munitions Board, which has cognizance of coordination within the two departments. They arrive at agreements between themselves as to which department shall have priority and call on certain supplies and use of certain producers, and so forth, and in case of any difference of opinion the matter is referred to the Priority Organization in the O. P. M., and their decision is final.

Senator BREWSTER. Now that covers what you have referred to primarily as the Army and the Navy. I now come to the lend-lease authority. What is the situation as to that?

Secretary KNOX. That is rather hazy as yet. It is just gradually emerging into something real.¹ Initially it was set up with a cabinet committee to administer, Hull, Stimson, and myself, and Morgenthau, but all of us were buried in work in our respective Departments and it was difficult to take on this additional duty, and that has gravitated into the hands of the secretary of that group, Mr. Hopkins, who now, I understand, although I haven't talked to the President about this, but I have read about it in the papers, is proposed, I think, and the order is about to be issued, making him executive officer in the administration of the lend-lease bill.¹ That, however, I want to say is qualified by the fact I don't know this to be so.

Senator BREWSTER. You haven't received any communication?

Secretary KNOX. I haven't received the order yet.

Senator BREWSTER. Either letter or Executive order covering this?

Secretary KNOX. Not yet.

Senator BREWSTER. That isn't at your office as yet?

Secretary KNOX. No; it wasn't there this morning.

Senator BREWSTER. Your understanding, however, is that Mr. Hopkins will be the clearing house for the lend-lease procurement?

Secretary KNOX. As a matter of fact, Senator—

¹ An Executive order, dated May 2, 1941, created the Division of Defense Aid Reports in the Office of Emergency Management and named Maj. Gen. James H. Burns as executive.

Senator BREWSTER (interposing). I said procurement, for lend-lease supplies.

Secretary KNOX. He has been that, substantially, because while he called a group of us together several times to confirm what he had done, he has been, in effect, the active agent for the group of four Cabinet members who comprise this original committee.

Senator BREWSTER. And you assume that he will set up an organization to handle it?

Secretary KNOX. He is now engaged in doing it.

Senator BREWSTER. It is a very considerable set-up that will be necessary?

Secretary KNOX. Yes; I don't know how considerable it will be, but some organization.

Senator BREWSTER. Seven billion dollars to start with?

Secretary KNOX. Seven billions.

Senator BREWSTER. That is quite a lot, even in our country, at this time. That will not, however, affect the matter of procurement, will it?

Secretary KNOX. No, no.

Senator BREWSTER. Procurement will still proceed through the regular channels?

Secretary KNOX. Regular channels. The underlying operation theory is that for Army material the War Department acts as purchasing agent, and for Navy material the Navy Department acts, and the allocation of material when completed is made when the material is ready for delivery. Do you get my point? If the British say they want 5,000 5-inch guns, we place an order, add to what we have already procured that 5,000 guns; when the first thousand are ready for delivery we sit down and say, "How can these thousand guns best be used, in this fashion or that fashion?" and we decide where that order shall go.

Senator BREWSTER. And to which agency is allocated the problem of aircraft for Britain, for instance?

Secretary KNOX. Types of aircraft are divided as to procurement between Army and Navy. The subject is closely coordinated by joint committees, and if a Navy type we take it, if an Army type they take it.

Senator BREWSTER. Isn't that concentrated in a distinct agency?

Secretary KNOX. Not wholly. Not now; it was at the beginning of the war; now they have created an air arm for fleet, and that is distinct. I think they have a third division, haven't they, a coastal command, R. A. F., Coastal Command, and Fleet Air Arm.

Senator BREWSTER. It has been my understanding that these are by allocations from the Air Arm, which is distinct.

Secretary KNOX. It may be so, but they are beginning in a very painful way; putting all their airplanes in one pool is not a good thing to do.

The CHAIRMAN. You do not think, Mr. Secretary, that a separate air force is practical?

Secretary KNOX. I do not. I think this war is proving it utterly, completely.

Senator BREWSTER. In your recent acts on this general subject you indicated that the Navy had made one serious mistake in not antici-

pating, which you very frankly admitted, that defenses against aircraft attack are necessary defenses for the ships of the Navy?

Secretary KNOX. I cited that, Senator, as an illustration of how changes in design will come as the fruit of war experience.

Senator BREWSTER. And wouldn't you add to that mistake the recommendation of the Navy Department to limit naval aircraft to 3,000 in 1938?

Secretary KNOX. In 1938 you must remember they had to proceed on the things they knew in 1938, and I would have to get back in that atmosphere before I could answer that question fairly. We didn't realize in 1938 what a factor the air arm of a fleet would be; we do now.

Senator BREWSTER. Well, a curious part of that is that prior to that time you had no limitations on naval aircraft except the number necessary to supply the treaty fleet and at that time for the first time in our history the Navy Department proposed to institute a numerical limit of 3,000. Wouldn't you consider that was somewhat extraordinary?

Secretary KNOX. No; I don't think so. Do you know how many planes it takes to equip our present fleet of carriers?

Senator BREWSTER. No.

Secretary KNOX. A very modest number; I have forgotten; about 1,200. That is all the planes it takes to equip all the air carriers we have, and then we have the necessity for patrol bombers. We had 200 and ought to have many more, of course. The rest of it is land-base planes in the Navy and that is susceptible to indefinite expansion.

Senator BREWSTER. Well, this isn't particularly material, except in the interests of historical accuracy, as I thought probably you hadn't been fully advised of the development incident to that legislation in 1938 when the limitation was finally stricken off by congressional action, rather than by administrative recommendation.

Secretary KNOX. The admiral has just said to me we can get planes faster than we can build aircraft carriers, which, of course, is pertinent.

Senator BREWSTER. Now, in the procuring of material, to which you have referred, steel for instance, you spoke of the matter of prices. I have read what has been published as to your evidence before the other committee of the House, which I have assumed to be substantially accurate, feeling that we may need, as I understand the report, to institute some further controls of the situation in regard to industrial cooperation.

Secretary KNOX. I think that is morally certain to come. Of course, the opportunity is afforded in a restriction, as we did before in domestic consumption of steel.

Senator BREWSTER. You recognize, I suppose, that the moment any additional elements of compulsion are introduced either as to labor or industry, it is going to disturb somewhat the harmony of our situation?

Secretary KNOX. Of course, I don't think we will have to resort to it.

Senator BREWSTER. That would apply whether you took steps to stop strikes as they frequently talk about it, or to fix prices?

Secretary KNOX. Well, I am not going—I will hold up a bit on the price fixing. I am not so sure of that because I feel a great deal of

concern lest we get into that deadly spiral we got in before of everything going up, wages, prices, and we get in an unhealthy condition at the end of the emergency. It is a frightfully difficult task of readjustment; I think some price control must be exercised.

Senator BREWSTER. And you have, of course, very intimate contact with industry in your general program of procurement?

Secretary KNOX. Fairly so.

Senator BREWSTER. And you feel that you will be safe against any slowing down on the part of industry if you do arbitrarily fix prices?

Secretary KNOX. Yes; I think we would be safe against that.

Senator BREWSTER. You saw the action taken by Mr. Henderson yesterday in regard to steel?

Secretary KNOX. Yes.

Senator BREWSTER. Was that a matter of consultation with other agencies?

Secretary KNOX. Yes; what I suspect Henderson is attempting to do is to find time to analyze steel prices and see what kinds of steel may properly be advanced in price and what types of steel production are not affected.

Senator BREWSTER. Now, is that matter gone over with the officials of Production Management?

Secretary KNOX. Undoubtedly they would be consulted, undoubtedly. I haven't yet, but undoubtedly they will.

Senator BREWSTER. Well, he took his action, then, without consultation?

Secretary KNOX. He took the action to freeze the thing where it was until an investigation could be made. I am just assuming that is what he did. I haven't talked to him about it; I just took it for granted that was the purpose. It is a sound purpose.

Senator BREWSTER. Now, under what authority was that done?

Secretary KNOX. You will have to ask one of our legal advisers; I don't know; I am not a legal student of the Constitution.

Senator BREWSTER. Anyone here—there is no one present from your Department who can advise us on that this morning?

Secretary KNOX. I don't want anyone to make snap judgment on it, because it is a constitutional question. I will bring you an answer to that question if you would like to have it.

Senator BREWSTER. You would agree that there is at least a possibility of its affecting very decidedly the cooperative attitude of industry?

Secretary KNOX. No; I don't think so, Senator. I think we are going to meet this situation and put it through successfully, not through compulsion on the part of anybody, but through a united effort with the whole American people. I am perfectly satisfied that is what is going to happen in the labor field, outside of a small number of marplots who want to sabotage the whole program. I think the overwhelming majority of workingmen are just as anxious to help as we are; that goes for the employers, too. I don't foresee any difficulty about this, if it is approached on a reasonable basis. Take, for instance, steel rails. How much will an increase of 10 cents an hour affect the cost of steel rails? Let's find out. Steel plate for ships—let's find out. That is the attitude in which the question is being approached.

Senator BREWSTER. You do recognize that to the extent that we move in the direction either of stopping strikes or fixing prices, that the Government must correspondingly assume the responsibility of seeing that everyone gets a fair deal?

Secretary KNOX. That is right.

Senator BREWSTER. Which is a tremendous responsibility.

Secretary KNOX. Very great responsibility.

Senator BREWSTER. And has to be administered with exceeding care to see that justice is done to everyone concerned. You would agree with that?

Secretary KNOX. I would.

Senator BREWSTER. You have a labor department in your organization?

Secretary KNOX. No; we have not; we are not a labor-adjusting organization.

Senator BREWSTER. You have no one corresponding to Mr. McGrady in the War Department?

Secretary KNOX. No.

Senator BREWSTER. You have never felt that——

Secretary KNOX (interposing). I have never felt that was a proper custom of the Navy.

Senator BREWSTER. Do you have someone who keeps track of prospective labor troubles?

Secretary KNOX. Sure, we keep in touch with it, but we probably turn that over to Mr. Hillman in the O. P. M., that negotiations may be carried out; the Navy has no ambition to be mixed up in the labor controversy at all.

Senator BREWSTER. If you see any trouble developing you simply report to Mr. Hillman or to Secretary Perkins?

Secretary KNOX. Mr. Hillman in the national-defense operations; that is where all the troubles go.

Senator BREWSTER. Doesn't the Secretary of Labor have primary responsibility?

Secretary KNOX. That may be true but my contact is with Hillman. Labor troubles affecting the Navy Department fall in two categories: Those which concern the civil employees in the industrial activities of the Naval Establishment itself, and those which concern private industry. All civil personnel matters are the function of The Assistant Secretary of the Navy. In his office there are naval officers who have had long industrial experience. The office directly handles labor relations of the naval establishments. It also keeps in touch with labor difficulties which threaten to, or do, cause stoppage of production on naval defense contracts. In this connection it maintains contact with the Office of Production Management, especially the office of Mr. Hillman, and the Conciliation Service of the Department of Labor.

Senator BREWSTER. What do you feel about the aluminum situation, about which we have been hearing a good deal?

Secretary KNOX. I have been very much concerned by a prospective shortage of aluminum. It is very vital. Unhappily, it is controlled largely by one company, and what I have to say, I want to make clear, has nothing whatever to do with any legal steps that have been taken; that is in the hands of the Department of Justice; it would be inappropriate for me to comment on that; but I do see an impending neces-

sity of limitation of domestic use of aluminum to the minimum, so there may be enough aluminum available for defense projects, and as rapid as possible expansion of the aluminum industry, so as to secure a greater backlog.

Senator BREWSTER. What is true of that is true in increasing measure of practically all of our materials, is it not? Very soon we have to move on an industrial program coordinated for everything?

Secretary KNOX. Well, I don't know how general that will become. I would not think it would affect more than half a dozen strategic materials.

The CHAIRMAN. Senator Wallgren wanted to interrupt there.

Senator WALLGREN. Mr. Secretary, you consider, of course, magnesium a very important strategic mineral?

Secretary KNOX. I do; very much so.

Senator WALLGREN. Do you know whether or not there exists a German-American cartel that controls the prices of magnesium?¹

Secretary KNOX. I don't know that; and I want to again repeat to you what I said to Senator Brewster, I don't want to comment on a lawsuit now in progress with the Department of Justice. I do know there is a shortage of magnesium and it is a very vital, critical material. I don't know anything more about it than that.

Senator WALLGREN. Apparently there is a deadlock there because of patents that are held by Germany, Austria, and these other countries; isn't there some chance of breaking that deadlock?

Secretary KNOX. Yes; I think steps are being taken to break it.

Senator WALLGREN. And there is quite a shortage of magnesium in this country?

Secretary KNOX. Oh, yes; very much so. They are taking steps, I presume you know, to get into production some additional plants to manufacture magnesium out on the Pacific Coast.

Senator WALLGREN. How long will it be before they will be able to produce in quantity?

Secretary KNOX. I can't give an accurate date, but I am told that the first one we induced to go into the business is going to be in operation within 6 months, something like that.

Senator WALLGREN. You will admit, however, that if there is a monopoly here it is controlled in part by foreign interests, by German interests, we ought to take immediate steps to break it?

Secretary KNOX. If that is so, Senator, it would be a very indefensible monopoly.

Senator WALLGREN. I think so, too.

Senator HATCH. There is one matter here on page 9 of your statement, Mr. Secretary, I wanted to ask you about, and ask if you care to comment further on it. At the bottom of page 9 you say this:²

The new drydocks and ship-overhaul facilities now building will greatly increase the capacity of yards on both the Atlantic and Pacific to care for the fleet-overhaul work and permit the construction of larger battleships which, because of their size, can only be built in Government yards.

Would you care to comment on those larger battleships?

Secretary KNOX. I think you will appreciate, Senator, that we had better not talk about specific tonnages.

Senator HATCH. The question is not in that form.

¹ For further discussion of this subject see Hearings, Part 3.

² Supra, p. 82.

Secretary KNOX. But these ships contemplate need for facilities which are not nonexistent at the present time, and we are engaged now in providing those facilities on both coasts. That is all I think it is wise to say.

Senator HATCH. I won't pursue the inquiry.

Senator BREWSTER. How is this price of aluminum fixed at the present time?

Secretary KNOX. By one concern, so far as I know.

Senator BREWSTER. And what proportion of the cost of modern aircraft goes into aluminum?

Secretary KNOX. I can't tell you that, sir.

Senator BREWSTER. Is there someone here who can?

Secretary KNOX. One of our aeronautical people can tell you that.

The CHAIRMAN. Will you furnish us that information for the record later?

Secretary KNOX. Yes; I will. When you have the admiral before you he can give you the accurate data on that. You must understand, Senators, that I am just a working newspaper man running a Navy and I don't pretend to be an authority on this.

The CHAIRMAN. I quite understand the problem. The shortage of aluminum, you feel, is rather acute?

Secretary KNOX. Very.

The CHAIRMAN. Haven't other countries taken pretty drastic steps to concentrate all their aluminum resources for defense?

Secretary KNOX. I presume so, although I haven't checked it. I know Germany has, as far as that is concerned.

The CHAIRMAN. That they have practically commandeered all aluminum of every character in the country, even in private hands, is that correct?

Secretary KNOX. That is correct.

The CHAIRMAN. And has such action been considered here, as yet?

Secretary KNOX. In only a general conversation, discussion of the situation. Ultimately we will probably have to come to that.

The CHAIRMAN. Has any survey been made to determine, for instance, how much aluminum there is in private hands in actual use? I don't mean raw.

Secretary KNOX. Only an approximation. I saw at one time the percentage but I presume that is vastly changed; at that time I think only 40 percent of the total aluminum produced was going into defense purposes; probably much greater percentage now.

The CHAIRMAN. Would you have the proper one in your Department who might be familiar with that and have those figures for us, and also what might be termed the reserve stocks of aluminum that are in the hands of consumers of every character over the country in actual use, because as I understand in Germany that is what they have called into being.¹

Secretary KNOX. Calling in utensils?

The CHAIRMAN. Yes; as I understand that is what they have done, haven't they?

¹ In a letter dated June 6, 1941, Mr. Eugene O'Dunne, Jr., Special Assistant to the Under Secretary of the Navy, advised the committee that "No detailed figures are available on this subject in the Navy Department, but this office has been advised by the Office of Production Management that the most reasonably accurate estimate of the amount of aluminum in the hands of the consumer public at the present time is from three and one-half to four billion pounds. This represents the best estimate that can be obtained from any sources of information known to me after inquiry."

Secretary KNOX. Yes; that is true.

The CHAIRMAN. Well, would you have whoever is the proper one give whatever might be estimates on that?

Senator KNOX. We will do that, Senator.

The CHAIRMAN. Mr. Secretary, I notice in your statement that the number of men in the Navy had been very considerably increased, but the number of officers has remained stationary. Is it contemplated to take any officer material from civil life?

Secretary KNOX. What you refer to, Senator, are regular Navy officers, and it remains pretty constant. We have enlarged the number of officers available by taking in about half of the reserves; we still have 50 percent of the reserves we can still call upon, then, to take care of the expanding number of ships and providing an adequate number of men of higher rank, a bill is now in process which will come before you soon which will deal with the whole question of temporary advancement in grade, before the officers of personnel.

The CHAIRMAN. That is what I was interested in. Was there a considerable saving in this stock of materials which you obtained in 1938 over that, of that strategic material which was put in stock earlier? Wasn't there considerable saving in price over what you have to pay now?

Secretary KNOX. I would have to check on that; I presume you are not just generally speaking.

Senator BREWSTER. You have the power to commandeer plants if industry hangs back, haven't you?

Secretary KNOX. Yes.

Senator BREWSTER. So that if there were difficulty over the prices you fix, industry would be faced with that alternative?

Secretary KNOX. Quite.

Senator BREWSTER. There is nothing quite comparable to that at the present time as applies to labor?

Secretary KNOX. No, it doesn't.

Senator BREWSTER. It would almost amount to slavery?

Secretary KNOX. As I think you may have seen, I have been before a House committee on the whole question of labor recently and I have no sympathy whatever with those who advocate the imposition of force with labor or force with capital, for that matter. I think you get a lot further by treating both with that meticulous fairness that will awaken their loyalty. That is the way to get a united country; it isn't going out and shaking your fist under somebody's nose and saying, "Damn you, you come." That isn't the way to get results anyway, in the Army, Navy, or anywhere else.

Senator BREWSTER. Of course, you don't quite apply that completely, because we are drafting 1,000,000 men at a dollar a day, that is compulsion is it not?

Secretary KNOX. No; that is the exercise of a fundamental privilege of an American citizen.

Senator BREWSTER. Well, I think you recognize we are using law on those men. I voted for the law and I believe in it.

Secretary KNOX. I believe in it thoroughly.

Senator BREWSTER. But I think that is a point which you agree is going to be a very important factor in expecting both industry and labor will exhibit a similar patriotic purpose?

Secretary KNOX. You are dead right.

Senator BREWSTER. That is manifest throughout these camps; the boys there want to see the rest of the boys back home play ball.

Secretary KNOX. Right.

The CHAIRMAN. I think they are going to play ball; they will have to, in all morality.

Secretary KNOX. I haven't any doubt about the fiber of our American citizenship.

The CHAIRMAN. I think you are right. Are there other questions, gentlemen? Mr. Knudsen has made a special request that he be heard this afternoon at 2 o'clock; I was not expecting to have a meeting of the committee this afternoon, but due to the fact Mr. Knudsen has to leave town tomorrow, he requested he be heard this afternoon, so the committee will meet at 2 o'clock.

(Whereupon, at 12:15 o'clock, an adjournment was taken until 2 p. m.)

AFTERNOON SESSION

(The committee resumed at 2:10 p. m. on the expiration of the recess.)

The CHAIRMAN. The committee will come to order.

TESTIMONY OF WILLIAM S. KNUDSEN, DIRECTOR GENERAL, OFFICE OF PRODUCTION MANAGEMENT

The CHAIRMAN. Mr. Knudsen, I understand that you have not a prepared statement, but that you expect to discuss the various points which have been furnished on this outline as we go along, and are expecting the committee to ask questions on those things which are not entirely clear. We are very happy to have accommodated you this afternoon, instead of having you come down tomorrow, so if you will proceed to explain to us the origin of O. P. M. and what some of its functions are, then we will ask you questions from there on.

Mr. KNUDSEN. I have to admit I came from another meeting and I haven't read this all the way through, but I will try to follow it as well as I can. I take it from this I don't dwell on anything that happened before the O. P. M. was formed. In other words, the Advisory Commission is out of this picture, as far as I am concerned?

Senator BREWSTER. Were you on that?

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. You were a member of that?

Mr. KNUDSEN. Yes, sir.

FUNCTIONS OF THE ADVISORY COMMISSION TO THE COUNCIL OF NATIONAL DEFENSE

Senator BREWSTER. We would like to know the relative advantages of the two systems; that is one of the subjects to which we are addressing ourselves.

Mr. KNUDSEN. All right, sir. Last May, one of the last days in May, I was called on the telephone from Washington by President Roosevelt at my office in Detroit. I was president of General Motors, and he said he wanted me to come down to Washington right away and do some work; he said I was to be put in charge of a production section of the Advisory Commission of the Council of National Defense; I was to be one of seven members, and I only had time to fly down to New York the

next morning and tell my people, and the following day I was in Washington. Without any previous conversation I called on the President, and in 15 minutes it was all over; I was working in Washington.

This Advisory Commission to the Council of National Defense consisted of a Materials section, run by Mr. Stettinius, and a Production section which I was to run; an Agricultural section, run by Chester Davis; Transportation section, Mr. Budd; a Price section, Mr. Henderson; a Consumer section, handled by Miss Harriet Elliott; and Mr. Hillman handled the Labor section. We each operated in our own field and reported to the President once a week. Mr. McReynolds was the secretary. Our function, when I came down here, was to find industrial plants that could do defense work. The Army and Navy had quite a sensible card system where they had tried to allocate the requirements of different factories, but their decisions didn't always check with the best arrangements for the particular factory they were dealing with.

So we started right in fresh by getting a schedule from the Ordnance Department and the Quartermaster Corps, the Engineers Corps, Medical Corps, and so forth; also one from the Navy, and we began to operate on a basis of that schedule. We took about 30 days before we got the first one, and, of course, it was subject to change right along because things were happening in Europe so fast that not only were the quantities changed but also the specifications in some of the things, so we took about 60 days before we had a pretty fair outline of what was required.

The first program was a partial program and dealt with something like 400,000 men; the final program is dealing with 1,200,000 men, and heavy equipment such as tanks, and planes, and guns for 800,000 more. That was the program, and Congress gave us the money in the early part of October, so naturally the first thing we started out on was planes. Everybody was concerned about planes, and the plane industry had not operated on a very high basis previous to 1940, because the orders were small.

The Army requirements were changed rapidly with the advancement of the art of building airplanes, but also the British were in here for planes and motors, so we consolidated all the requirements as we could find them, plus the anticipated amount you were going to give us the money for later on, and wound up with 33,000 planes. There were only about 7,000 planes on order when we came down here.

Senator BREWSTER. About what time did you reach that 33,000 figure as to your contemplated production?

Mr. KNUDSEN. Well, we set that up in July.

Senator BREWSTER. That covered the Army, the Navy, and the British?

Mr. KNUDSEN. Yes, sir; there were 14,000 for the British and 19,000 for the American services.

Senator BREWSTER. And that was planned for a year. Did you expect to be able to do that in a year, or how long?

Mr. KNUDSEN. We were told that we ought to do that by January 1942, but of course the schedule didn't stand very long; increases kept on coming into it, but in order to have something to start from we took those 33,000, and we allotted them to the manufacturers that were approved by the services; we planned for the increased floor space that was needed for that. Also the motors which at that time

were figured at 1.7 motors per plane we tried to arrange for them, for floor space, and equipment, so we got that program pretty well under way by the time we got the money. Then we could clean up the contracts and have the orders made for them.

The first thing we ran up against, of course, was the Vinson-Trammell Act to set a proper limitation on the plane cost.

Senator BREWSTER. That was the 10 percent?

Mr. KNUDSEN. Twelve percent; then it was cut to 8 percent, and it applied to the subcontractors also. Now there are as many as 500 subcontractors in a plane plant, and consequently the subcontractor, if he had an order for \$25,000, was worried about the profit limitation because he might have other work in his plant that paid him a higher profit; if he came under the Vinson-Trammell Act, he had to keep a certain set of books for the subcontract he had with the Government, so we called them all together and agreed to take contracts for a lot of planes, all but one manufacturer, that was Douglas; his order was so big he didn't dare risk a firm price, so he took a fixed-fee contract.

We, in the meantime, went to work with the White House and Army and Navy and finally managed to get the Vinson-Trammell Act suspended for the period of the emergency, so that we were free to get as many subcontractors as possible. You see, a job like an airplane, you can talk about 100 airplanes a day and 500 a day, and all that sort of thing, but you have to cut the thing into sections. You have to make many pieces out of an airplane, and then have these pieces made in as many places as possible, and be sure when you get them they go together and make one airplane. That is the only way you will get quantities on airplane production.

If you have to build the whole thing up like a boat you could get airplanes, but you can't get enough of them. So we immediately started into the airplane manufacture and tried to get the manufacturers to cut the plane up into sections. The first one was a bombing plane made by North American, that we laid out in 32 sections. We had something to start from then, and first we recommended that they themselves go out and find people to make these sections; second, we said, "We will help you find people to make sections." That was the beginning of the subcontracting business in airplanes. Previous to that the airplane manufacturer bought the standard parts, bolts, nuts, rivets, and so forth; but he did everything else himself; and, of course, we felt that we were going into higher production in airplanes in a very short time, and if he had to build for this sole-purpose factory, we would have millions of square feet of factories; whereas, if we could split it up, we thought that was the answer to it.

On motors it happened to be the same thing. Fortunately, on motors the British came in in the spring of 1939 and placed some orders.

The CHAIRMAN. You think that was an asset—that the British had come in?

Mr. KNUDSEN. It was of some use; it wasn't a very large part, but at least these fellows thinking about expansion before we came into the picture—the British had bought quite a reasonable number of air-cooled and liquid-cooled motors, so all we had to do was go in there and add some more on top of it, get them equipment, tools, and we had this advantage, that the air-cooled motor was pretty well developed. The Pratt-Whitney and Wright had made them a number of years and, of course, you understand that it is absolutely essential that you have

some experience with a motor. A designer can't make a motor, and you start making 500 a month the next day—it just didn't work out that way.

There is a period there to do what we call production engineering and get all the little limits worked out on all the parts before you get a finished product. After the product is finished, engineered, and proven, then you can multiply. So we had pretty fair results with the airplane manufacturers and the motor manufacturers, but beside that we had to go out and find sources and expand sources for carburetors and struts, the struts with the wheels on that the airplane lands on, all sorts of instruments and things like that; we had to go out and expand all these people to meet the demand that would come later on.

By August we were quite aware of the fact we were going to need a lot of machine tools, because the first thing you need is a building; the second thing you need is machine tools; and then the fixtures that go on the machine tools; and then you can start operation. We got the machine industry together, and they agreed to expand just as fast as they could. They agreed to go to three shifts as fast as they could get the men, and where they couldn't get men enough for the third shift, which, you know, is not a popular shift for workmen to work—from 12 midnight to 8 in the morning—they agreed to let the men work two shifts, with as many overtime hours as they could handle.

So it didn't take more than 60 days before we had them pretty well on full time, and we were expanding wherever we could, and we got them to start the subcontract outside for lathe wheels, some of the slides, the tail stock, to get a chap to make that for them so as to make it possible for them to get more tools on. The result is something like this: In 1939 the machine-tools industry in the United States produced \$200,000,000 worth of machine tools; in 1940, the year finished, they produced \$400,000,000 worth of machine tools. Right now we are running at the rate of \$750,000,000 worth of machine tools. So you see we doubled and almost doubled up again in 2 years.

The next thing after that was tanks. We had two designs of tanks, the light tank, weighing about 13 tons, was pretty well designed, with but few changes projected, after the experience of Flanders. The medium tank weighing 27,000 pounds, that had to be redesigned. The experience abroad proved that the turret had to be lowered, the armor plate had to be increased; we had to put a 3-inch gun on, and that delayed that program to quite some extent, because we always had to start all over on top of the running gear and up; the running gear remained about standard, except we had to strengthen it a little on account of the additional weight, so we got five people to make the medium-sized tank.

The light tank, we had one company that was doing fairly well in production; we got them to put up another plant in another locality, so they had two sources. The biggest tank plant we started in Detroit with the Chrysler Co. The Army told us that they wanted the plant somewhere for tanks only so as not to have the tank in the arsenal messed up with rifles and machine guns and other things, small cannon or whatever they had, so I went to Chrysler and got Chrysler to agree to handle a tank plant for the medium-sized tank completely equipped; it was Government property, would always be Government property, and make 14 tanks a day maximum after they got into full production.

The CHAIRMAN. How soon will they get into full production?

Mr. KNUDSEN. They will be in full production in October this year. The plant opens on Tuesday, this coming Tuesday. I have been in the plant many times; when I go to Detroit I always go around to see the different plants in Detroit. In fact, I make it a point to go out and see plants whenever I can find time to slip away in a plane. The first trip I took I visited airplane plants in the United States on the Army list. I visited every motor plant in the United States that was in the Army list so that I knew exactly what was going on in there and got acquainted with the manufacturers.

Senator BREWSTER. On the Chrysler plant, for instance—does Chrysler have an option of acquisition?

Mr. KNUDSEN. No. This is built for the Government; always will be the Government's property; when the emergency is over the Government can use that building for a tank arsenal, and will conduct the future experimental work so that the next time we have an emergency they will have a finished design for it. The plant is leased to Chrysler at present for \$1.00 a year.

Senator BREWSTER. Have you many other instances of the same kind?

Mr. KNUDSEN. Well, we haven't any more tank plants on that basis. On airplanes we have four bomber plants that are built for the Government, with Government funds, and which will revert to Government operation after the emergency is over, feeling that they can use them as what you might call service stations for all the planes we have in use. There is one in Fort Worth; there is one in Kansas City; there is one in Omaha; one at Tulsa, Okla.; these four are Government property, will always be Government property.

Senator BREWSTER. You lease those, do you, to the builder? You lease them to the builder, or does your arrangement contemplate the free use?

Mr. KNUDSEN. The operator or manager gets a fee for the operation of that plant. The Government pays all the expenses, pays the labor and material and all the shop expense, and everything that goes with it, but it is a Government property.

Senator BREWSTER. Does that come under the restrictions as to labor that apply to Government employees, or are they employees of the contractor?

Mr. KNUDSEN. They will be company employees when they are started but it is a Government owned project.

The CHAIRMAN. I would like you to proceed with the tank proposition; then we will get to the bombers.

Mr. KNUDSEN. Well, I have practically told the story about the tanks, sir. We have five manufacturers working on the medium tank and one manufacturer with two factories working on the light tank.

The CHAIRMAN. Well, this Chrysler plant—is that for a medium tank?

Mr. KNUDSEN. That is for a medium tank. The American Car & Foundry Co. makes the light tank in two plants. Also on the tank we had to go out and get parts, accessories, transmissions, crankcases, wheels, things like that we had to buy from subcontractors; we had to create sources for them. We went to the Mack Truck Co. and got them to make transmissions for the other four manufacturers. The Chrysler plant would be self-contained; it will make all the parts for the tank; we might even be able to get some extra units from them in

some of the other plants. The reason for that is that doing that way we hold the investment down. The Chrysler plant cost \$20,000,000, but the other five plants, the other four plants in the medium-sized tank, probably won't represent more than seven or eight million dollars in plant investment. That was in order to hold the investment down.

The CHAIRMAN. How soon will these bomber plants be in production?

Mr. KNUDSEN. In the latter part of 1941.

The CHAIRMAN. Latter part of 1941. How is the plane production progressing now?

Mr. KNUDSEN. Well, last month we got 1,216, I think it is, which is about three times what we had last June.

ORGANIZATION AND FUNCTIONS OF THE OFFICE OF PRODUCTION MANAGEMENT ¹

The CHAIRMAN. I would like you to explain to this committee, Mr. Knudsen, just the set-up of O. P. M. and what its various parts are, and its powers.

Mr. KNUDSEN. We worked along until the end of the year under the old Advisory Commission, and at the beginning of the year, in fact January 9 or January 7, the so-called Office of Production Management was set up with a board heading it, consisting of Secretary Knox, of the Navy, Secretary Stimson, of the Army, Sidney Hillman, and myself, I being a director general and Mr. Hillman the associate director general. We were set up to embrace the old production and materials divisions in the Advisory Commission. We took over priorities and purchases so that we are set up as what you might call an expediting agency. We make no contracts with anybody; we can't sign a contract. The contracting is purely under the law vested in the Secretary of War and the Secretary of the Navy, so all we can do is engineer or act as salesmen, whatever you call it, to find sources where you can place a certain thing.

For instance, we might get a gun; we might get a call for a new gun; well, the services will show us this gun and say, "Where do you think we can get them placed?", and we have a gun man over in our outfit and he will hustle around and find some place where he thinks that gun will fit in, and where he can get the quickest service on tools.

The CHAIRMAN. Does this set-up work efficiently and in harmony?

Mr. KNUDSEN. I will have to leave it to you to judge, sir.

The CHAIRMAN. I want your opinion.

Mr. KNUDSEN. I think we handle whatever comes our way. I suppose you know, you have seen in the paper, that from the beginning of the F. B. Y.² appropriations of 1941 or 1940 we have placed somewhat, cleared somewhat, over \$12,000,000,000 worth of stuff. Of course, a large part of it comes through our hands; a good part of it is bought direct, but all the heavy equipment we engineered after a fashion has been given our advice as to where to place it so as to get the best results in the shortest possible time. We have two things to deal with; first, we want to be sure that the company is responsible and able to make the thing; and, second, where can we get it the quickest? In some cases if it is a small piece it might be good judgment to place it in one shop, and in other cases it might be better judgment to place it in

¹ See appendix, pp. 374-384, for supplemental statement of Mr. Knudsen on this subject.

² Fiscal Base Year.

two or three shops, so as to get the greatest quantity in the shortest time. That is more or less dependent on the amount of tools that the company has that they can utilize.

The O. P. M. was formed by Executive order of the President on January 7 and we are set up in four divisions. We have a Priorities division, a Production and Materials division, a Purchase division, and Labor division. In other words, these four divisions each have their field to deal with and as we get the requirements from the Army and the Navy they are routed through the divisions, and each man takes his share of them, and begins to work on them to try to fit them into the program he has now got, or extend the number of sources so as to spread it still further. In addition to that, we inaugurated in the beginning of this year what we call a Contract-Service section.

We found that if a good many small manufacturers in different parts of the country said, "I have got three or four machines of this kind, and two of that kind, where can I go to get an order?" We can't give them any order, but we can bring this little manufacturer and the prime contractor together. We can show them there are more people that can do this kind of stuff and we opened some 36 offices and connected them up with the Federal Reserve buildings in different places, and these offices are manned by people that more or less volunteered to serve us. We generally get some manufacturer that had retired and is still willing to do some work for nothing; we get him to come in there and work.

The CHAIRMAN. The object of those 35 offices is, if possible, to find the small manufacturers and try to get them some of the business?

Mr. KNUDSEN. To bring him into a channel for whatever he has to offer that can be put to use.

The CHAIRMAN. There has been a great deal of conversation about the small manufacturer being shut out in this. I would like to discuss that, if you feel inclined.

Mr. KNUDSEN. Yes. Of course, when we talk about contracts and contractors we only talk about the prime contractors. We have no record of the subcontracts and, of course, when you print the totals of the contracts and see Ford Motor Co., \$155,000,000, or something like that, that is only one name, but as a matter of fact there might be 150 subcontracts under that, and I think that created the impression that we were giving this to only the big fellows, which we were not. The first time I went to Seattle to see Boeing I was shown a B-17 bomber, 4-motor bomber. I said, "That is a nice job. How many subs have you got on it?" He said, 532. He had 532 places where he bought material for this B-17 bomber, but, of course, that never appeared in the contract and people thought we just simply willy-nilly handed the chap some \$200,000,000 worth of business, and he was the only one that did it. That is not so.

I am frank to say that some of the manufacturers had expanded subcontracting to quite an extensive degree, and others sort of pulled the thing into their shell, wondering whether they could get the proper limits and specifications if they bought it from another concern, and the first thing I bumped into was Pratt & Whitney up in Hartford, the United Aircraft, who had always utilized the small New England manufacturers, whereas Curtiss-Wright in Paterson

had more or less corralled the business because around Paterson there wasn't quite as much metal work as there was in New England, Paterson being more or less of a textile city to begin with. So we went to United Aircraft and said, "Please give us a statement of how much of your stuff you purchase from other people," not raw material but semifinished and finished material, and they gave us a statement, so we just confronted Curtiss-Wright with that and they were quickly converted because they just opened up another plant in Cincinnati and are going to subcontract 70 percent of the stuff outside. In that way it was merely to get it spread, you see; not because we were in the business of spreading it but because we could get more work that way, more hours over a larger area, and, of course, while it is all right to bring people from one location to another, that is the standard in Germany now; they just come and move over four or five thousand people; they haven't anything to say about it. I never felt that that is the right thing to do.

The CHAIRMAN. I am glad to hear you say that.

Mr. KNUDSEN. If it is anyway humanly possible I would rather bring the work to the men than bring the men to the work for the simple reason that a man with a home is never happy when he is away from home.

The CHAIRMAN. And you don't have any housing problem when you leave them at home.

Mr. KNUDSEN. No. But the real fundamental thing of it is that mentally he is not happy, even if he makes a lot of money; he is always thinking about getting back home.

Senator BREWSTER. You wouldn't favor making our shipbuilders up in Maine go out to the Great Lakes?

Mr. KNUDSEN. I am coming to that. Of course in ships—I was going to bring that up—you have to have ships where the water is deep enough to take them; there is no question about that. We are going at that in a different way. On these standard ships we are going to build we are getting the propulsion machinery and the auxiliaries and all the parts we can scrape up made in the Middle West, and while the ships were too large to go into the Great Lakes, you know the Welland Canal, 261 feet 5 inches, I think is the limit, we gave the Great Lakes the small ships, the ships of 200 feet and less, and in that way tried to equalize the load.

The CHAIRMAN. Do you have these ship parts made at any of the inland steel fabricating companies?

Mr. KNUDSEN. Yes, sir. You see a ship such as the standard ship, the so-called ugly ducklings that we are going to build, are really an assembly job. It is not a shipbuilding job as a shipbuilder knows building ships; no form plates; they are just punched or sheared to size and sent to the yard and there they are erected, and inasmuch as most of the ships that they have are welded anyway it becomes a relatively simple matter to make a standard ship, and we are in hopes that it will be possible to get results because the skilled shipbuilders are spread pretty thin right now with the amount of Navy work we have.

Now, in this outfit of ours, the set-up of O. P. M., we have these four heads—Mr. Biggers runs production and material, Mr. Stettinius runs priorities, Mr. Nelson runs purchases, and Mr. Lubin runs the labor section with Mr. Hillman.

These four people are getting together all the time, almost daily, hourly; we are right on the same floor; they can go call on one another when they want anything, and meetings are held either with the section individually or with all the sections together, where we talk about the job, and the biggest part of our business is done on the telephone, both with the services and between the Departments themselves. I have a private line to Secretary Knox and Secretary Stimson right in my office; all I have to do is lift up the telephone and talk to them; Mr. Hillman is right next door to me; I can walk in there and ask him what I would like to know.

So I think we have reduced routine, as you might call it, routine operations, to the simplest form possible, as nearly as possible to what you might find in a commercial institution. We also have a research and statistical division under Mr. May. We try to get all our records to one place and the office management is handled by Mr. Jackson, who worked for me, and he handles all the pay rolls and correspondence and things like that, so I think we have it simple.

Senator BREWSTER. When you clear these contracts which have to be signed, as I understand, by the War or the Navy Departments, you approve them first, anything in excess of \$500,000? Does that have to be approved by more than one person? Does your approval suffice?

Mr. KNUDSEN. The section head and the boss.

Senator BREWSTER. That is yourself?

Mr. KNUDSEN. Yes; there are two names.

Senator BREWSTER. It doesn't have to go to the Secretary of War or Navy or Mr. Hillman for approval?

Mr. KNUDSEN. No. Of course, we feel if there is a labor problem involved Mr. Hillman expresses a desire to see it, and he can see anything he wants.

Senator BREWSTER. But as far as the actual procedure is concerned, your approval alone is sufficient?

Mr. KNUDSEN. Yes. In fact, I don't approve them now; I let either Stettinius or Nelson or Biggers.

Senator BREWSTER. Priority?

Mr. KNUDSEN. Yes.

Senator BREWSTER. You mean you don't even put your name on them?

Mr. KNUDSEN. No. If there is a plant investment involved that costs a bit of money they send it in to me to let me look it over because I have had a great deal of experience in plant cost and things like that, so I can pretty near tell, but ordinarily they are perfectly capable of handling it.

Senator BREWSTER. I take it you are coming later to the procedure under the lease-lend bill?

Mr. KNUDSEN. Well, the procedure under the lease-lend bill is practically the same thing. We get a specification from the Army and Navy Department and we handle that just as if it was any Army or Navy, or that is really the biggest benefit we got out of the lease-lend bill, because we don't have to deal with different people; we don't have to deal with the British now; we only deal with the Army and Navy.

Senator BREWSTER. Your information as to what is needed comes entirely from those two Departments, then?

Mr. KNUDSEN. That is right.

Senator BREWSTER. You don't deal directly with Mr. Hopkins?

Mr. KNUDSEN. No; I don't.

Senator BREWSTER. All procurement, so far as the Government is concerned with defense of any character, come under your direct supervision in that sense?

Mr. KNUDSEN. Will you please repeat that?

Senator BREWSTER. All procurement, so far as defense is concerned with our Government, comes under your direct supervision?

Mr. KNUDSEN. I think that is so.

Senator BREWSTER. In that sense?

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. And your approval is finally subject to the actual signing of the contract by the Department immediately involved?

Mr. KNUDSEN. I don't think we can state it exactly that way. We can signify our willingness to subscribe to the contract, but they don't have to ask us whether they can sign the contract; they are the final authority.

Senator BREWSTER. I said subject to the actual execution of the contract by the Department involved, but isn't it true that under the Executive order these departments must refer this matter to you before action?

Mr. KNUDSEN. Yes.

Senator BREWSTER. Anything over \$500,000?

Mr. KNUDSEN. We supervise.

Senator BREWSTER. So that you do have a final say there?

Mr. KNUDSEN. We are like the engineer on a building.

Senator BREWSTER. You are responsible in that sense to see that there isn't overlapping or confusion between the various agencies concerned; that is your primary responsibility, is it?

Mr. KNUDSEN. I can't quite subscribe to that.

Senator BREWSTER. Well, in what way would you limit that? How is it possible for any of these agencies to do anything without your approval above the limited amounts we have spoken of? They must have your approval, mustn't they?

Mr. KNUDSEN. Do you refer to us?

Senator BREWSTER. I am referring to you now as the Office of Production Management. I am not saying whether you are a two-headed or four-headed body; whatever you are.

Mr. KNUDSEN. Well, they bring it to us for review. Let's call it review; we look it over, and we say we think this is all right; then they execute the contract, but if they choose to override us, I don't think we have any redress under the law.

Senator BREWSTER. I would like to know about that.

Senator HATCH. Mr. Knudsen, isn't it true that you merely act in an advisory capacity?

Mr. KNUDSEN. Correct; our prime responsibility, if I can put it in very simple words, is to see that a ten-dollar fellow doesn't get a million-dollar job—if I can put it in rough words.

The CHAIRMAN. You try to see that the ten-dollar fellows get ten-dollar jobs and the million-dollar fellows get million-dollar jobs.

Mr. KNUDSEN. No; that isn't quite so, but you know in the last war—I can still remember the last war pretty well—

The CHAIRMAN (interposing). I can, too.

MR. KNUDSEN (continuing). Certain people got contracts that never could be done by them; they just shopped the contract around in the street and that hasn't happened during this emergency, I can assure you of that.

THE CHAIRMAN. That is a good thing. Tell me something, Mr. Knudsen, our production ability, will it equal the German production ability when we get going?

MR. KNUDSEN. We have much more than that, sir; we have much more production capacity; we have as much as any two countries in Europe that you can mention, when we get it going. There isn't any comparison there.

THE CHAIRMAN. Even in military equipment?

MR. KNUDSEN. Oh, yes.

THE CHAIRMAN. You think we can supply the whole world with military equipment if it is necessary?

MR. KNUDSEN. I don't know about the whole world, but I think we can take on any two of them; I mean on production, as far as production is concerned.

THE CHAIRMAN. That is what I am talking about; production.

MR. KNUDSEN. We hear a lot of figures; we get sometimes a little overenthusiastic ourselves, but fundamentally I think we have the skill and the machines and the knowledge that goes with making anything that goes into military use.

SENATOR WALLGREN. Are these foreign countries like Germany gaining on us, though, in that respect?

MR. KNUDSEN. We haven't got started yet, so what do you mean by gaining? I am talking about after we get going.

SENATOR BREWSTER. I want to clear up that question. I want to get clear just about the functioning, and I want to be clear that I am not questioning you in any hostile sense, as I am an earnest advocate of centralizing all power in your hands. That is the thing for which I have contended for the last year, but I wanted to determine definitely to what extent we have achieved that goal. We have had both Secretary Knox and Secretary Stimson here, and they have both said that the Advisory Commission didn't work well at all. They were thoroughly out of sympathy with that and strongly advocated this revised set-up which is now represented. We haven't been able, I think, yet to determine to just what extent the priority is concentrated: First under statute, second under Executive order, third under the actual practice. That is what I wanted to determine. The farther you can go the better I will like it.

MR. KNUDSEN. In actual practice I am not particularly concerned with the execution of the contract. I am only concerned with the responsibility of the firm that undertakes the contract. For me to sit down and go into the cost and price of each article would be an impossible task; so all I can do is use my judgment that I have gained over 40 years in the shop and apply pound rates to the thing, or tonnage rates, so to speak, and give as my best judgment, "I think this is all right," or "I think this ought to be reconsidered"; that is, the status.

SENATOR HATCH. If you think it is all right, then it is approved and goes on through?

MR. KNUDSEN. Yes, sir.

SENATOR HATCH. Suppose you think it is not all right?

Mr. KNUDSEN. I recommend that it be reconsidered, and as a general rule it is.

Senator HATCH. It is reconsidered?

Mr. KNUDSEN. Yes. You see, with the secretaries on the O. P. M., our working relationship is very close, and it has been very pleasant so far that I have no squabble or squeamishness about talking to them about any certain job, whether we could do it, and I never find any disposition on their part not to do business in the proper way.

Senator BALL. Do you recommend reconsideration of any substantial portion of these contracts; what percentage, roughly?

Mr. KNUDSEN. We generally get in on the negotiation before they reach the contract stage, and that is where we do our switching. Of course, that is the most important thing, you understand, sir, to get in on it during the negotiation stage, because there you can go either way. Once the contract is settled and we have to override, it makes a bad thing.

Senator BALL. In other words, your heavy work is done before the formal contract is ever sent over to you. Then it is pretty much just a routine matter.

Mr. KNUDSEN. And the sooner we can get it—the earlier in the stage—the better job we can do in spreading it around, of course.

Senator BREWSTER. It is definitely established, isn't it, that under the Executive order, those matters must be referred to you?

Mr. KNUDSEN. Correct.

Senator BREWSTER. Now, isn't there further statutory provision of that character under some of the appropriations; do you know?

Mr. KNUDSEN. Some of the appropriations for plant facilities placed with the Advisory Commission on National Defense didn't work so good.

Senator BREWSTER. Because that was a seven-headed body.

Mr. KNUDSEN. There were seven different opinions as to where the location should be.

Senator BREWSTER. That is expiring.

Mr. O'BRIAN.¹ Does not apply to O. P. M.

Senator BREWSTER. Under the new act the President was required, wasn't he, to approve certain matters in connection with plants?

Mr. KNUDSEN. The President has final approval of anything.

Senator BREWSTER. And that plant committee operates under you?

Mr. KNUDSEN. It operates under Mr. Nelson. It operates in O. P. M.

Senator BREWSTER. One of your subdivisions?

Mr. KNUDSEN. In other words, the Army, Navy, Munitions Board of the Army, Navy, have got a board, and we have got a board. One acts as a check on the other.

Senator BREWSTER. Now, the reason that this has worked as harmoniously as that is because of the complete agreement within the body. Is that not the case?

Mr. KNUDSEN. There are only five now; there were seven before.

Senator BREWSTER. You are getting down. Now, it is also true that a great percentage of the decisions have been left to you.

Mr. KNUDSEN. Yes. I want to say this: I don't want to be flippant, but the men that are on the plant committee now are people that know

¹ John Lord O'Brian, general counsel, Office of Production Management.

plants, and that, of course, is a great advantage if you want to talk about plants, to know something about it.

The CHAIRMAN. I would like for you to discuss the shipbuilding situation a little further, Mr. Knudsen, particularly with reference to the naval construction.

Mr. KNUDSEN. Well, day before yesterday I was in Quincy, and I went up on a battleship and walked over the battleship with the manager, and this ship is going to be launched the 1st of August. Of course, I had an opportunity to see how the armor was attached, the way the construction is done, and I thought it was swell. I told him so. I was very much pleased to see it. There is a plant that builds not only the ships. It builds the turbines, builds auxiliaries, turns the shafting. I thought it was a marvelous job, so I am going out and see some more.

The CHAIRMAN. That was a Government-owned plant?

Mr. KNUDSEN. That is owned by the Bethlehem Shipbuilding Co. You know, the navy yards are the Government plants, and these private shipbuilders have been working on Navy work for quite a few years, and I am going out and see some more, because if they are all like the one I saw, I am pretty happy about it.

The CHAIRMAN. Are they making the progress anticipated?

Mr. KNUDSEN. Yes; doing well with the three shifts, all shifts practically fully manned, and the work is going along very smoothly as far as I could see. In fact, I complimented the manager. I saw cruisers, destroyers, battleships, and even an aircraft carrier. They were making a whole line of models for the shipbuilding industry. But we have a certain system, you know. The man that handles the ship end in our show, Mr. Harrison, goes out and sees plants and makes a report to me, and if there is anything in the report that I don't like, I send it over to the shipbuilding men in the Maritime Commission and the Navy, and tell them we found so and so, will they please have somebody check it up. Maybe I should elaborate. I place a great deal of dependence on personal contact between our department and the manufacturer. I think when you go see a place, in the first place you look at the mar that is doing the work, you look at the work, and you get a better understanding than you do by reading a lot of reports.

The CHAIRMAN. I think that is true.

Mr. KNUDSEN. So we have a system of sending men out all the time to the different plants, not particularly for the purpose of finding something wrong, but to go out and report truthfully what they see there. I do the same thing when I go. The other day I came to Dallas and stopped in Nashville, and saw a little airplane plant under construction. Then when I came back home, I called up the fellow who runs the plant (he lives in Los Angeles) and told him what I thought of it. And I think that is the way to do business. I have always done it that way before.

And I want to tell you this, if I may. I don't find anybody that isn't trying to do his best for the defense program. Certainly there might be mistakes in it—we have placed twelve and a half billion dollars' worth. We couldn't be perfect. If we were, we ought to be dead. But I do think that people as a rule have got their heart in this work, and they are always telling me what they are going to do next, which is also a very good thing. A fellow who tells you what he did last month isn't in this at all. We want to find out what he is

going to do next, and in that way I think we have worked out a relationship that is going to be quite agreeable. The Army and Navy people are on the job and often come up and talk to us about the inspection, specifications, plans. If we find something that could be helped in one way or the other, we go talk to them about it. We never have any trouble getting action if it is right.

I think I have explained these four divisions in this set-up, and I suppose you gentlemen know what each division is doing. Now the one thing that we can't get, we can never get the whole program at any time, so we try and guess in the plant expansion how far we can go safely with the funds we get to spend for plant expansion; but in a good many cases we have just got one started when we have to put another piece on, because we have another program.

Now here comes the lend-lease program. We hadn't figured on that at all. We were figuring on the Regular Army appropriations coming along, and we put 60 percent on top of the present program, and we have to hustle out and get set up for that. The easiest thing in the world would be to go out and build a whole lot of plants and fill them full of tools and keep that separate over there for the use of the armament program, but we just haven't time to do that any more. So what we are going to build now is, as far as possible, plants that have no commercial use, such as powder plants and TNT plants, and try to get the machine work split up so widely and so broadly that we can get along with the present plans, or, as in case of motor manufacture, we might have to put up some test houses if they haven't that before—but try to hold the plant investment down, not because we are particularly worried about the amount of money, but because the time doesn't permit. So, we are in hopes of going at this on a real retail basis, get it spread as much as we can, because in the first place it helps the local condition, and in the second place, it gives us more time, or we save time.

You can imagine there are a lot of difficulties in going out to a man and giving him a Government drawing with perhaps closer limits than he ever had before and have him understand that where he was working to a one-thousandth before, he will have to work to ten-thousandth now. But if you can get him to understand it, the mechanical knowledge in this country is tremendous. In fact, you talk about closer limits, at the time I came over here in 1900, one-sixty-fourth of an inch was about as close as we worked then, and today we make piston pins in the Chevrolet cars at two-tenths of a thousandth, and we make 50,000 pins a day. So the mechanical skill is in the country, as long as we get the proper understanding of the drawings and specifications. That is what I pin everything on.

You know, we have managed to place over 2,000,000 workers since January 1940 in defense work. About 2,000,000 have been employed over what we had, and we will probably go to around two to three million more—maybe 4,000,000 more—by the end of this year.

Senator BREWSTER. You mean 4,000,000 more in addition to the 2,000,000?

Mr. KNUDSEN. We might have that by the end of the year, and there is quite a problem in getting these people together and getting them trained to do some particular operation in connection with the job. Mr. Hillman's department started way back and got a lot of training

activities started by borrowing some of the personnel people from the big companies—like the Standard Oil and Westinghouse—and setting up local units in many locations here in the United States where a man can go and find out where there is a training school. These training schools are in many cases run by the manufacturers themselves, and a lot of our educational institutions are turning the schools at night over to vocational studies by people trying to improve themselves. I think that program has worked very excellently, because, you know, we had a lot of young people during the depression who were sort of left out in the cold as far as getting a job was concerned. They are coming into the picture now and are beginning to get the desire to work with their hands.

Senator BREWSTER. Do you think, Mr. Knudsen, that you will be able, within the next 6 months, to give employment to everyone who is employable?

Mr. KNUDSEN. That I don't know. That is a personal question between the employable and the manufacturers.

Senator BREWSTER. But you will have an opportunity for them. Whether they will work is another matter.

Mr. KNUDSEN. I think there will be an opportunity to absorb all the slack we have. At the moment where there is some training going on, and particularly where executives are spread so thin—you know, foremen and superintendents, things like that—we have to work some long hours.

Senator BREWSTER. Of course, that is a very important question to us, because this last year we put up one billion and a half dollars to take care of people who were employable but for whom there couldn't be found jobs, so that if you are able in the next 6 months to develop a program that will afford them opportunity, it is going to help out a great deal.

Mr. KNUDSEN. I have a notion that you won't hear much about the unemployment problem after this fall.

Senator HATCH. What is that going to do in a State like mine, New Mexico, where we have none of these industrial activities at all?

Mr. KNUDSEN. You haven't so many unemployed, either.

Senator HATCH. We have a good many unemployed in comparison to the total population.

Mr. KNUDSEN. You have no industrial activity at all?

Senator HATCH. None.

Mr. KNUDSEN. Senator Hatch, I don't know what we could put out there, but I am willing to listen to a suggestion.

Senator HATCH. I thought maybe you might have a suggestion.

Mr. KNUDSEN. If you will give me a little time to think it over. New Mexico is a big State. I have been there.

Senator BREWSTER. Isn't it going to be necessary—I think you have indicated this before—to give up some of the things we have been accustomed to in the course of the next year or two, like automobiles?

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. That is, your program is gradually going to emphasize the essential things.

Mr. KNUDSEN. We have to do it this way [gesturing]. As fast as we can get the other stuff in, we can back off on the stuff we can spare. We have already had some of it in aluminum, of course.

Senator BREWSTER. What do you feel about this aluminum situation? We've had a number of questions about that.

Mr. KNUDSEN. We are going to make some more aluminum. We are going to build some more.

Senator BREWSTER. Now, we saw that Mr. Henderson fixed maximum prices this morning for steel. Was that done in consultation with you?

Mr. KNUDSEN. I am on his committee.

Senator BREWSTER. You are on his committee?

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. So that was gone over by your price-fixing committee?

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. How do you feel as to whether that will make any of the boys drag their feet because they can't get the price they want?

Mr. KNUDSEN. I don't think so.

Senator BREWSTER. In the New York papers this morning, there seemed to be quite a howl. You don't feel that is likely to cut down production at all?

Mr. KNUDSEN. I don't think so. A howl never hurts anybody.

Senator BREWSTER. You feel that we probably have got to check the tendency for price increase?

Mr. KNUDSEN. I believe so, sir.

Senator BREWSTER. And that was the best place to tackle it?

Mr. KNUDSEN. I think that is right. I approved it.

Senator BREWSTER. To what extent were you able to determine whether or not that was the fair price? How far did you go in that?

Mr. KNUDSEN. Well, there was no necessity for going into it because the only thing you had to deal with was whether the wage increase reduced the profit margin to an unreasonable state.

Senator BREWSTER. That is the essence of it?

Mr. KNUDSEN. And that, of course, we have no measure of, as yet, until actual experience shows it, and I believe Mr. Henderson is going to take a look at it when you get into the second quarter.

Senator BREWSTER. To find out whether it is actually imposing a hardship?

Mr. KNUDSEN. To see what happens.

Senator BREWSTER. That does involve your determination of costs and fair profits.

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. And is that likely to be extended to other industries, do you expect?

Mr. KNUDSEN. I imagine so.

Senator BREWSTER. To avoid endangering it, how do you feel about the labor situation as to whether that is under control?

Mr. KNUDSEN. I feel a little better than I did a month ago. Of course, you can't take any personal view in it. You have to look below the surface to the bottom of the thing. Now, you take \$12,000,000,000 worth of work and throw it into the industrial picture, and everybody begins to talk about all the profits that are going to be made out of that; the fact that the profit comes out of their own pocket doesn't seem to matter at the particular time as long as you can conserve a little some-

thing for your own pocket. That brings along a certain amount of unrest. Fortunately, your wage level in the United States, and certainly in the metal-working industry, is fairly high; so there isn't a question of starvation wages or anything like that in the metal-working industry, and I think the thing will sort of smooth out. It was kind of annoying for a while, because, you know, there are three kinds of strikes: Jurisdictional strike, organization strike, and strike for wages. Specifically, I think the first one is just stupid. There is no sense in a jurisdictional strike when there is plenty of work to go around. I can understand when work is short we might try to protect a particular trade. But not where there is plenty of work for everybody.

The organization strike is where either the union, or two unions, take advantage of the defense program to get a better contract than they had before, where there are no wages involved, and I don't think it is fair. They should be willing to talk that thing over and keep on working.

Senator BREWSTER. The President, under your advice, has the power to take over any industrial plant that doesn't prove cooperative, has he not?

Mr. KNUDSEN. That isn't the language of the act. The language of the act says that if the manufacturers refuse—and, of course, they aren't going to refuse.

Senator BREWSTER. I meant take the illustration, for instance, if the steel plant should refuse to furnish you with steel at what you have fixed as the maximum price and was going to lock his door, you would have the power to take that over.

Mr. KNUDSEN. Yes, sir; on a refusal we have that power.

Senator BREWSTER. There isn't at this time any analogous provision about labor. You are concerned with the strike situation, as I understand it. That presents an entirely different question because it brings up the question of enforced labor, I assume.

Mr. KNUDSEN. That is right.

Senator BREWSTER. Taking a plant is different from taking a man. In either event, however, it does require that you determine what is fair?

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. Which is a very considerable responsibility for the Government to assume. If, before we get through with the crisis, it is determined in the case of every product and every man's wages, we would have a pretty totalitarian regime, would we not?

Mr. KNUDSEN. It never goes that far in America. One or two—

Senator BREWSTER (interposing). I hope not. But I assume that is the reason you want to move pretty slowly in that direction—you want to get results by conversation rather than by using a big stick.

Mr. KNUDSEN. Judge O'Brian calls my attention to the fact that we are on the sidelines and that it is the Secretary of War and Navy who do it. Under the statute we have no function.

Mr. O'BRIAN. The reasonableness of the price, in other words, is not determined by O. P. M., but by the Secretary of War or the Secretary of the Navy. It relates to military supplies alone. Under section 9 of the Selective Service Act, in case of a refusal to furnish the goods at a reasonable price as determined by the Secretary of War or the Secre-

tary of the Navy or to comply with an order, the President, through one of those, may take over the plant. This Executive order vests that Presidential power in the O. P. M., but the determination of the price still remains with the Secretary of War or the Secretary of the Navy.

Senator BREWSTER. Haven't you earlier pointed out that both the Secretary of War and Secretary of the Navy, under the Executive order creating the O. P. M., must refer all major contracts for approval—

Mr. O'BRIAN (interposing). Yes.

Senator BREWSTER. To the O. P. M.; so that, while under the statute they have that authority, under the Executive order they can't actually exercise it? It is a matter for Mr. Knudsen's determination in the first place. And then, after he decides it is not fair, he has to decide whether they would take the plant over if it came to that spot, which, of course, it might.

Mr. O'BRIAN. Yes, sir.

The CHAIRMAN. Is it your opinion, Mr. Knudsen, that there is an effort at cooperation both by employers and labor to carry out the national-defense program?

Mr. KNUDSEN. I think so, generally.

The CHAIRMAN. Do you feel that there is, either among labor or employers, any effort to hold up the defense program anywhere?

Mr. KNUDSEN. Well, if there is one apple in the barrel, you know, you can't say whether it is one or the other. You know that. I have bumped up against a few of them that looked good. I think they work, by and large, for the defense program.

The CHAIRMAN. Do you think there is any "fifth column" activity among the manufacturers or labor in carrying out the national-defense program?

Mr. KNUDSEN. Do you mean sabotage?

The CHAIRMAN. Yes.

Mr. KNUDSEN. I have heard of some of it, but we have to depend on Mr. Hoover to look after that part of it. He is pretty well organized to look after it. But the biggest piece of irritation in these pictures is these fellows who won't wait for anything, who want to go and get these fellows on the street and don't know how to get them in after getting them out there. The technique of getting them out is perfect, and after you get them out, you don't know how to get them back in; and in the meantime a lot of time is lost. We, of course, look upon that here as so many guns or tanks or bombers lost if we lose that many man-hours not working.

The CHAIRMAN. In all probability the so-called cooling-off period which has been discussed before the House might be a good thing?

Mr. KNUDSEN. I certainly think so. You know, most of the people who get mad wouldn't do it after cooling off. I think that is human. I believe that that would be all right.

Senator BREWSTER. Do you have in your agency a statistical division?

Mr. KNUDSEN. Yes, sir.

Senator BREWSTER. Would they be able to give us an estimate of what the defense production might be during this next 12-month period? I mean work in process, not orders placed—but actual stuff.

Mr. KNUDSEN. Man-hours, you mean?

Senator BREWSTER. Yes.

Mr. KNUDSEN. By types or by total?

Senator BREWSTER. I am thinking now in terms of our national income of sixty to seventy billion. That is the only measurement that I would know for it, to determine to what extent you will be affecting that.

Mr. KNUDSEN. We can furnish those figures if desired but in dollars if you wish a comparison with national income.¹

The CHAIRMAN. I would appreciate it if you will furnish it for the record of this committee.

Do you have any further questions, Senator Wallgren? Senator Hatch? Senator Ball?

We thank you very much, then, Mr. Knudsen. If you desire to correct the record after it has been put into print, you will have that privilege. I thank you.

Mr. KNUDSEN. I thank you very much.

The CHAIRMAN. The next meeting of the committee will be Monday, at 10:30, and Mr. Hillman will be the witness before the committee.

(Whereupon, at 3:20 p. m. the committee adjourned until Monday morning, April 21, 1941, at 10:30 a. m.)

¹ See appendix, p. 384 et seq., for figures, subsequently submitted by Mr. Knudsen, on defense production in fiscal years 1941-42 and national income.

INVESTIGATION OF NATIONAL DEFENSE PROGRAM

MONDAY, APRIL 21, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE INVESTIGATING THE
NATIONAL DEFENSE PROGRAM,
Washington, D. C.

The committee met at 10:35 a. m. on Monday, April 21, 1941, in room 318, Senate Office Building, Senator Harry S. Truman presiding.

Present: Senators Harry S. Truman (chairman); Mon C. Wallgren, Carl A. Hatch, Joseph H. Ball, and Ralph O. Brewster.

Present also: Hugh A. Fulton, chief counsel, and Charles P. Clark, associate chief counsel.

The CHAIRMAN. The committee will come to order. Mr. Hillman, if you have a statement to make to this committee, we will be glad to have it at this time.

TESTIMONY OF SIDNEY HILLMAN, ASSOCIATE DIRECTOR GENERAL, OFFICE OF PRODUCTION MANAGEMENT

Mr. HILLMAN. Senator, I have the statement prepared. Probably before I read the statement, to show the magnitude of the task before us—

The CHAIRMAN. Would you prefer to finish your statement before you are questioned?

Mr. HILLMAN. Yes; if I may.

ROLE OF LABOR IN THE DEFENSE PROGRAM

Mr. HILLMAN. I would like to read into the record what our real task is today as far as labor supply is concerned. The amount of the appropriations for national defense to date is more than \$30,000,000,000. If we were to try to carry that program through in 1 year we would need almost 16,000,000 workers, who would be divided approximately into 6,000,000 skilled, 6,000,000 semiskilled, and 4,000,000 unskilled. That is a task.

I would like to tell you in as much as detail as possible how we approached it, because we saw early in the defense program the great problem of getting a labor supply to meet the requirements of national defense.

When the Labor Division began its work 10 months ago, it faced an unparalleled problem. The national economy was to be put to the strain of supplying, in the shortest possible time, great quantities and high qualities of defense materials. Many of the items called for were unfamiliar. In some cases they were entirely new and

strange. Huge as were the first defense appropriations and authorizations made by Congress, they were only the prelude to further and vaster sums.

Our productive capacity was tremendous, but on top of it we now had to call into being a new defense industry. Many existing industries had to be modified. Where we had been making farm tractors, we had to make tanks. Where we had been making passenger planes, we had to make bombers. Where we had been making dynamite for normal purposes, we had to make TNT and gunpowder for military purposes. It all meant that existing plants would have to be enlarged and changed and that entirely new mills and factories and shipyards would have to be designed and built.

At every point in this process, there would have to be labor—qualified labor of many different kinds—to build these plants, and to use the tools and operate the machinery for turning out the guns, tanks, planes, and ships for defense.

The central task of the Labor Division, first in the National Defense Advisory Commission and now in the Office of Production Management, is simple enough to state. It has been, and remains, the task of seeing to it that such labor is provided when and where it may be needed in all parts of the country. Just as new commodities had to be produced, old skills had to be readapted or new skills developed. In normal times, this adjustment of labor to new industrial conditions takes place so gradually and naturally that it all seems automatic. Here it could not be automatic—we could not leave the human factor in defense production to chance. By purposeful planning, we had to match our multibillion-dollar-defense industry with the multimillion man-hours necessary to make it function.

You previously have had described to you, I believe, the task of calling into use our great potential industrial capacity. Our job, which is the other side of that coin, is calling into use our great potential labor capacity. All too few people realize the scope and magnitude of this problem. Let me indicate it to you by a few figures.

The Army and Navy so far have placed contracts for \$2,400,000,000 worth of planes, engines, and parts. More than 15,000 planes must be delivered by October 31, 1941, with an even greater number to follow within the next 12 months. When the job began, in June 1940, only 117,000 workers were employed by the final assemblers of airplanes, engines, and propellers. On January 1, this year, the number had risen to 185,000, an increase of 58 percent. Today 220,000 workers are employed, an increase of 90 percent. And in order to deliver the 15,000 planes by October 31, there must be more than three times the number originally employed. This means that we must still provide, within the next 7 months, 170,000 workers for the airplane industry in addition to the 103,000 already added. And they all must be qualified workers.

As Secretary Knox indicated to your committee last week,¹ our shipbuilding industry for years was virtually at a standstill. Our schedule calls for the building of 1,120 naval and mercantile vessels, of which 266 are to be delivered by December 1941. Today our shipbuilding industry, both governmental and private, is employing 251,000 workers. Within the next 18 months we must provide 309,000 more, so that the total will be 560,000.

¹ Mr. Knox's testimony appears *supra*, p. 77 et seq.

The machine-tool industry often has been called the major bottleneck. This, you know, is the primary operation of all in our modern mechanized industry. The new assembly lines basic to modern mass production cannot be installed until after the machine-tool industry has done its job. The work which this industry requires is supremely skilled. After a long period in which very little new plant capacity was being provided, the machine-tool industry was at a low ebb of manpower. From 1930 to 1938, it used on the average only 27,000 workers. By February of this year, it was employing 85,000, which was a threefold increase. Before December of this year, it must have more than 100,000 workers. This presents an acute problem in this field, for only the highest craftsmanship can translate the blueprints of engineers into one ten-thousandths of an inch precision.

All such demands for highly skilled labor are occurring at once. And thus it goes through all the basic defense industries and in related industries besides, in greater or less degree.

Let me break down this problem by regions.

In the Boston area, construction contracts for defense let up to March 1 of this year will require 358 million man-hours of work for their completion. Three hundred and forty-seven million of these man-hours must go into construction of ships. The total is equal to a full year's employment for 179,000 men.

In the Kansas City and the St. Louis areas, the total man-hours required for meeting building requirements of the War and Navy and other Departments will exceed 12,000,000,000 man-hours.

In the Minneapolis-St. Paul, area the total man-hours will exceed 2,000,000 and will be devoted to building construction both for the Army and the Navy.

In the Philadelphia-Camden area where shipbuilding is the most important of the defense industries, more than half a billion man-hours will be required—a total equal to a full year's employment for 250,000 men.

The Seattle-Tacoma section of the country will require 103,000,000 man-hours of work equal to a year's employment for 52,000 men. Ninety-three million man-hours will be required for shipbuilding and 10,000,000 for other types of construction for the Army and Navy.

Taking the South as a whole, approximately 610,000,000 man-hours or slightly less than 25 percent of the total required for our construction activities for the country as a whole will be needed. Of this amount, 407,000,000 will be in ship construction.

We of the Labor Division sought to ascertain, in advance, what this national demand for skill was going to be. With the very first awarding of defense contracts, we had economic and industrial engineering experts busy analyzing them to find out precisely what numbers and kinds of workers each individual contract would require—and when and where.

We resolved to get ahead of the demand and keep there as long as the defense emergency should last. To carry out this resolve, we had to recognize realistically two conditions that then prevailed.

The Nation was emerging from a period in which a great deal of its former asset of labor skill had become rusty or lost. Formerly skilled mechanics were trying to make their livings in service stations and behind counters. During the depression, a new generation had risen

without acquiring the normal measure of trade skill, and certainly without normal experience in industry.

Moreover, industrial production had been rising for some time. It had reached, in June 1940, a level of 115, or 5 percent higher than in 1929. This meant that industry, in large part unrelated to defense, had already reabsorbed a considerable quota of the existing skill. We had then to meet the sudden, ever-enlarging needs of defense industry for skill, and yet more skill. We had to do it when usual sources of supply had been already tapped. We had to do it also within a time limit daily shortened by the stringency of the emergency. Time—time was of the essence of our effort.

In view of this situation, it is gratifying to report to you that more than 2,000,000 workers have already been placed in industry as a direct or indirect result of the defense program.

No serious situation has yet developed in which there was an urgent need of workers that was not fulfilled. So far, our primary responsibility of providing the manpower for defense production has been for the most part successfully met. And that is why you read of great new plants, air-training stations, and shipways being completed ahead of schedule.

MEANS USED TO SUPPLY LABOR FOR DEFENSE

Mr. HILLMAN. It may assist your inquiry to know how this has been done. First and foremost, it has been done by the cooperation of labor itself. One of my first steps on becoming a member of the National Defense Advisory Commission was to appoint a Labor Policy Advisory Committee, consisting of 16 leading officials of the American Federation of Labor, the Congress of Industrial Organizations, and the railway brotherhoods. It made a unanimous pledge of "full and unstinting" support of the defense program. This pledge of cooperation was recently reaffirmed. I want to say that at no time have I called upon the men of this Labor Policy Advisory Committee without receiving their constructive response. Among the basic policies of this committee—I quote—is the following:

Labor recognizes fully that if the democratic way of life is to be preserved and enlarged, our country must prepare itself for total defense, morally and materially. Labor knows that it is the first to be trampled under the march of dictatorship. Labor knows that if workers are to remain free men, and keep their free choices, democracy * * * must be equipped to meet the threat of totalitarianism, within and without. Labor has been, and is, cooperating wholeheartedly throughout the entire defense effort.

Directing its attention to the mobilization of manpower, the Labor Division coordinated 6 governmental agencies, namely the United States Employment Service, the Civil Service Commission, the United States Office of Education, the Work Projects Administration, the National Youth Administration, and the Federal Committee on Apprenticeship. The United States Employment Service, through its 1,500 offices, proceeded to compile a register of 5,700,000 unemployed people, subdivided by communities and by their various skills and degrees of skill. The trades unions prepared their own inventories of their unemployed members, and also of their members employed in unskilled or semiskilled callings, who had in the past performed more expert types of work. In this way, by pooling all such surveys of manpower, we inventoried and analyzed the Nation's storehouse

of labor skill. We now know what labor resources might be drawn upon for the work of defense in every section of the United States.

The assembling of these data was only the beginning of our task. We still confronted the need for more and more skill of special types. We, therefore, formulated a far-flung and comprehensive program of labor training—a program geared to the specific needs of defense production.

In the first place, the 6 Government agencies I have mentioned combined their resources to accomplish this purpose. The idea of refresher courses for workers whose skill needed restoring or modernizing was promoted through the vocational schools, and took hold at once. The preemployment courses for new workers crowded the classrooms. At this time, we have this movement going forward in 47 States, 3 Territories, and the District of Columbia, and by the latest figures 816,000 people of both sexes and all ages were profiting by these courses. And a high percentage of those who have completed the courses are employed in defense jobs where this training is used. By midsummer, the attendance will have reached a million.

The United States today is building a greater asset of skill than ever before and is doing it by the cooperation of all groups. Workers from the unions, executives from industry, foremen from the shops, and local committees of employers, educators, and labor leaders, have pooled their knowledge and experience to aid in this training work—to devise the methods, administer the courses of instruction, and furnish the mechanical equipment. This program is not only building skill, it is building cooperation.

Let me cite a typical example of how these courses fit workers into defense occupations. The Murray Corporation of America, in Detroit, recently asked the vocational schools of that city to train 6,000 workers in aircraft-construction trades, for employment with that corporation during the next few months. Labor, management, and the school groups united to set up the required courses. At the present moment 1,700 future workers are being qualified, the classrooms being active on a 3-shift basis, 24 hours a day. By September 1, these special classes will have provided some 80 percent of the 6,000 workers required by the Murray Corporation to meet its defense contracts. And these will be resident workers, the importation and dislocation of the labor supply being avoided by means of this local instruction. The Murray experience merely typifies what is going on in hundreds of communities throughout the country.

The actual training which a worker gets on the job, in the plant, is, of course, acknowledged to be the best. During the depression, this idea of in-plant training had been quite generally allowed to lapse. It was necessary to revive it, not only because of its superiority, but because speed was essential. There were, for example, very few skilled lens grinders in the entire country, capable of grinding lenses such as would be needed in quantity for range finders. At one of the Government arsenals, a study made early in the program showed that it was possible to break that bottleneck within the available time only by dividing the task into several operations and by teaching each operation separately, thus reducing the time of training from several years to a few months. I could cite other examples of no less importance.

It was to overcome this kind of problem that the Labor Division set up its Training Within Industry Section. It is under the direction of training specialists borrowed from leading industries.

This section is assisted by 6 advisers from organized labor and 6 from management. To carry out the program, by the way, which was agreed to unanimously, with no difference between labor and management, the Nation has now been divided into 22 regions, with a Training Within Industry district representative in each. Each of these is an expert in his field and is approved and advised jointly by labor and from management in his territory. In addition, every district representative will have the assistance of a panel of 10 or more personnel and training consultants borrowed from industry and available to help defense plants install training programs. When the schedule gets into full operation, there will be from 300 to 400 such aides on call.

This method of upgrading skills through training within industry is also being integrated into the training policy of Government services. The Secretary of the Navy lately directed all naval inspectors to spread the knowledge of training within industry techniques as formulated by the Labor Division throughout the navy yards. Naval contractors are also taking it up, and a specialist has been assigned to advise the private shipyards of the Pacific coast on how to install this training. And among the important byproducts of this "on-the-job" program, as with other activities of the Labor Division, is the growing sense of mutual understanding and collaboration between management and labor deriving from their close association in this enterprise.

May I point out, parenthetically, that one of the obstacles to the widespread adoption of training within industry has been the attitude of some employers who, through the depression years, became accustomed to procuring their labor merely by pushing a button or sending a messenger out to the gates. The requirements of the defense program have shown up sharply the inadequacy of such methods. We must not only educate workers on the job, but educate employers to the need for training. The system is spreading rapidly, however. The end of the haphazard days of obtaining labor has arrived, at least for this emergency.

Let me at this point emphasize that in our entire attack upon our problem, I have considered it of the first importance that idle labor and idle facilities should be used where they are as fully as possible. For that reason, defense labor should be drawn from the home market. We have not, of course, been able to eliminate all migration of labor from the picture. But the fact remains that there has been no such wholesale displacement of workers from their homes, their families and their surroundings as there was during the World War. The Labor Division has consistently urged that the Federal employment offices, the unions, and the employers themselves, tell the workers not to go job seeking to distant points; if his type of skill is needed away from his home, he will be called. The training of the local worker for local employment avoids a host of economic and social troubles connected with migration, such as housing shortages, congestion, higher costs, and delay.

In order to utilize local labor most effectively and to head off unnecessary migration of labor, we actively participate in a Plant Site Committee. It works in close cooperation with the Plant Site Boards

of the Army and Navy. This Committee on Sites reviews the locations proposed by other Government agencies, for example, by the Army and Navy, for new defense plants or expansions. Its work, among other things, is to determine whether a labor supply is available at or near the given site; and in this connection, the Division has collected detailed information bearing on approximately 150 new plant or plant-expansion sites suggested by the War and Navy Departments. In some cases, these labor surveys have resulted in changes of proposed locations by the contracting departments. In one typical case, the War Department planned to place a large shell-loading plant in a certain midwestern city. On investigation, the Labor Division learned that labor must be imported and that there was no housing to care for these prospective workers. Skilled men would have had to travel between 120 and 140 miles every day to reach the job. As a result, the site was relocated and the plant built in a community where workers are available within normal distances.

Nevertheless, there has had to be some transplantation of labor, especially where military considerations required it. And where this has occurred, we have the cooperation of labor very largely to thank for the fact that the migration process has been held under control. In the case of many Army cantonments and Naval air training stations and munitions plants throughout the country, scores of thousands of skilled workers were brought by unions, at no expense to the Government, to make possible the rapid completion of these projects.

PROBLEM OF STRIKES AND CREATION OF NATIONAL DEFENSE MEDIATION BOARD

Mr. HILLMAN. Now let us take a look at the problem of strikes. We must recognize that most American labor unions and most American employers share the credit for the unusually small number of strikes over the past 12 months. There are thousands of collective-bargaining agreements in existence, providing for the adjustment of management-labor differences, and these operate continually and are regularly renewed without any interruptions of production. The great preponderance of industrial disputes are, of course, settled without any work stoppage.

Just the other day, for example, a threatened strike arising from a dispute between the Minneapolis Moline Power Implement Co. and the C. I. O.'s United Electrical, Radio and Machine Workers of America was certified to the National Defense Mediation Board. But while traveling toward Washington to meet with the Board, representatives of management and the union began talking on the train, continued their conversation in a hotel, settled the points at issue and then jointly chartered a sightseeing bus for a tour of the Capital's points of interest. Despite the fact that a Board panel was ready and waiting to hear this case, its services did not become necessary. Meantime the plant was kept in continuous operation.

In spite of the tremendous expansion of industry that has occurred, strikes are becoming less rather than more numerous. And they are of shorter and shorter duration. At the present time, outside of coal, there are only about 15,000 workers on strike in the whole range of national defense.

This may be regarded as remarkable, for it is a well-established fact that increases in industrial activity are regularly marked by increases in work stoppages through industrial disputes. The growth of defense industry has brought with it many factors of stress and strain which, under ordinary circumstances, might well give rise to labor disputes—factors of labor turn-over, adjustments of new personnel to new conditions, and other common causes of disharmony.

The Labor Division places its emphasis upon the necessity for continuous production. From the outset, it has had its own labor relations staff, including both industrial and labor advisers, collaborating closely with the United States Conciliation Service, to prevent work stoppages and to adjust differences between management and labor.

With the rapid growth of defense industries, we recognized that there was need for a board along the same lines as the Taft-Walsh Board of the World War. Accordingly, together with other agencies of the Government, we recommended the creation of the present National Defense Mediation Board. This Board, as you know, came into existence a few weeks ago and 15 cases have been certified to it. It has heard 12 of them, and in 9 cases, production has been resumed. This Board has dealt with some of the more aggravated situations.

Let us remember that many elements enter into an honest and fair appraisal of any strike situation. It is not a reasonable assumption that a work stoppage is necessarily the fault of labor. As I said to the American Society of Newspaper Editors last week, when large profits are reported in the press, labor justly feels it is entitled to some fair share of them. When labor is denied various rights guaranteed to it by law, labor cannot be expected to sit by without protest. The mere fact that a picket line is more dramatic than a decision of the board of directors does not relieve us of the obligation for clear and fair analysis.

One of the principal reasons for the existing state of affairs between labor and management, which by and large is harmonious, is the rapid increase in recent years in the number of collective bargaining agreements in American industry. This has been especially true in industries today concerned with national defense.

I now wish to refer, in this connection, to an accomplishment worthy of special consideration. I refer to the stabilization program for the all-important industry of shipbuilding, designed to keep it at full peak production for the duration of the emergency. On November 27 last, we in the National Defense Commission established within the Labor Division the Shipbuilding Stabilization Committee. Its membership comprises shipyard employers on the east coast, Great Lakes, Gulf, and west coast; representatives from the A. F. of L. and the C. I. O. unions whose members are employed in the shipyards; and the United States Navy and Maritime Commission. This committee sponsored a conference covering all private shipyards on the Pacific coast, which are now working on \$667,000,000 worth of defense orders.

The purpose of the conference was to fashion a uniform agreement covering all essentials of production and employment relations. On April 11, the Navy and the Maritime Commission, together with the O. P. M., approved this agreement. It provided a basic hourly wage for skilled mechanics and was adopted for the entire coast. It further

provides for a 6-day, 48-hour week. The agreement also provides for no strikes, no lock-outs, and no restrictions upon production, and for settling disputes without work stoppages during the period of the emergency. Here is certainly one of the most advanced labor-management group agreements ever entered into. It may well serve as a model, not only for other shipbuilding zones, but for other industries.

In all our activities, whether in training workers for new jobs or in dealing with industrial relations, we have adhered strictly to a course of voluntary cooperation and sympathetic teamwork. No compulsion has been practiced; no regimentation has been applied. We have depended on the self-imposed voluntary discipline of free men—not only because it is the way of freedom but because it insures the highest possible achievement in both material and moral terms.

The defense emergency, to sum up, is teaching us valuable lessons. It is giving us a new cooperation between Government, management, and labor. In everything the Labor Division has done, this striving for a threefold harmony has been present at every step. We believe we are getting results, accordingly, not only in the colossal job of production but also in the fundamental matter of preserving and energizing our democracy.

The CHAIRMAN. Mr. Fulton, I want you to ask Mr. Hillman a question or two, and then we will proceed in the usual manner.

Mr. FULTON. Mr. Hillman, for the assistance of the committee, would you describe in general the experience and background with which you approached this problem, the work that you have done in the past?

Mr. HILLMAN. My own work?

Mr. FULTON. Yes.

Mr. HILLMAN. Well, I have been representing organized labor in official capacities since January 1911. I have participated in arranging for agreements between labor and employers in the clothing industry that have lasted, at least in one company, just 31 years without any interruption of work, and we are quite sure it will probably go on for another 30 years. It established a very cooperative relationship between labor and management in that industry. It has avoided the waste that comes from stoppages of work, strikes, or lock-outs. And, what is more, it has brought greater efficiency through cooperation between labor and management.

That is my experience for 30 years in the labor field.

Mr. FULTON. And you have held high offices in that union?

Mr. HILLMAN. I have been president of that organization for 26 years, since its inception, and before that I was an officer, a local officer, in the organization that preceded it.

This organization has engaged in cooperative housing, to be of service to labor groups of small-earning incomes, and I think it has a fairly successful record in that field in that it did not turn its work over to other agencies during the years of the depression.

I am also associated with two banking institutions under the auspices of that organization, one in Chicago and one in New York, and so I have had the experience of those problems that arise in meeting pay rolls, and the general problems arising in connection with finance.

Mr. FULTON. In addition, Mr. Hillman, I think you had offices in the general field of labor.

Mr. HILLMAN. I was vice president of the C. I. O. until last November when I did not stand for reelection because of my position in O. P. M. I have been chairman, and still am chairman, of the Textile Workers Union, a purely honorary position, and so I would say that my contacts have been fairly wide and large, for more than 30 years, in the field of labor.

Mr. FULTON. I just wanted to develop that background.

That is all, Senator.

The CHAIRMAN. Senator Wallgren, have you any questions?

PROBLEMS TO BE MET IN THE LABOR FIELD

Senator WALLGREN. You speak of the harmony that exists at the present time in this emergency between labor and government. Isn't that all going to be jeopardized if we have an increased cost of living to these men, these workers?

Mr. HILLMAN. I would say, Senator, if you refer to the increases granted, all of these things have to be compared with what has happened previously in the field of labor relations. Relationships are more harmonious now than during the last World War. As to the questions of increases, they are fairly well under control, and I would say as of today I don't see any danger of any inflation in the steps taken because of general increases.

Senator WALLGREN. However, that is apt to be a factor?

Mr. HILLMAN. Of course, if permitted to run wild, it would but nothing that has been done as of today—

Senator WALLGREN. Well, at the present time higher rent costs, higher living costs, are all along the line. It looks like we are going to step along at a rather rapid rate of increased cost of living. If we continue along at that rate, labor just won't be as complacent.

Mr. HILLMAN. I say, Senator, so far the cost of living, the rising cost of living, has been held down to a very reasonable proportion.

Senator WALLGREN. Don't you think there is quite a little danger of it getting out of bounds?

Mr. HILLMAN. If we do not watch it carefully. I hope we will.

Senator WALLGREN. Do you believe there is any justification for jurisdictional disputes?

Mr. HILLMAN. I have said time and again, there is no justification whatsoever, in my judgment, for any jurisdictional disputes.

Senator WALLGREN. We have had, even with this defense program—

Mr. HILLMAN. Very few.

Senator WALLGREN. I know of one or two.

Mr. HILLMAN. Yes. Again, all these things, Senator, we have to take in comparison with what happened before. I have somewhere here the resolutions that have been adopted by the A. F. of L., I think 4 or 5 weeks ago, banning any and all kinds of jurisdictional disputes, or rather stoppages because of jurisdictional disputes, between their own organizations, and I understand that none has occurred since.

Senator WALLGREN. Not very long ago, in the work going on at an aviation base out in my State, the A. F. of L. refused to work on the job because the lumber that had been hauled to the project had been hauled by C. I. O. workers.

Mr. HILLMAN. That was very unfortunate, unquestionably. I say we are doing all we can, Senator, to see that there are no such stoppages, and we certainly have been effective in bringing those kinds of differences down to a minimum.

Senator WALLGREN. I might say that I have been in Congress for about 8 years, and during that period of time I have gone along with almost everything these boys have wanted, but that is something that I don't think we can really stand for.

Mr. HILLMAN. I think, Senator, it is realized more and more amongst labor itself that there ought not to be any question of stoppages of work because of jurisdiction, especially on the defense projects.

Senator WALLGREN. That is all.

The CHAIRMAN. Senator Hatch?

Senator HATCH. I was just thinking of this statement you made on page 6,¹ Mr. Hillman, about the basic policy of labor. It is a fine statement. I think it is a true statement. It concludes, though, that labor has been and is cooperating wholeheartedly throughout the entire defense effort. There is a decided opinion to the contrary throughout the country. I wish you would amplify that conclusion.

Mr. HILLMAN. Senator, I am trying very much in my appearance before this committee and other congressional committees, to be cooperative. I really consider these investigations are of great help to labor itself, and surely to the defense program, in that we have an opportunity to state the facts. For example, in appearing before the Judiciary Committee, presided over, I think, by Congressman Sumners, I put in the record the actual percentage of the number of people involved in those strikes, and the highest percentage at that time was less than three-quarters of 1 percent in an industry.

Senator HATCH. Would you furnish this committee with those same figures?²

Mr. HILLMAN. I will be delighted to.

Of course, Senator, a strike makes for news. We can go ahead and settle disputes quietly, as in the shipbuilding industry, where we made an agreement that has been ratified.

Senator HATCH. May I note an agreement, and say that this statement that you gave about the Minneapolis Moline Power did not get into the news.

Mr. HILLMAN. It got in, I believe, because the disputants chartered the bus. I think that was the news value. I think if they hadn't done that, there would have been nothing at all. That was a very interesting incident that I know of personally, because people I know in Minneapolis followed it through. There was a vote for a strike, and ordinarily a strike would take place. Well, that case was certified to the Mediation Board before a strike took place.

It is again an erroneous impression throughout the country that cases are being certified to the Mediation Board only when a strike actually takes place. It so happened that the Mediation Board got busy on the few quarrels we couldn't settle by conciliation in O. P. M. That case was certified before there was a strike, and on the way to Washington because of the mediation services before and the work

¹ Of Mr. Hillman's prepared statement. See p. 122, supra.

² Subsequently supplied by Mr. Hillman; see appendix, p. 386.

of the representatives of O. P. M., they utilized that time of traveling to Washington precisely as a continuation of those services, and reached an agreement. Of course that would be no news at all if they hadn't come and chartered a bus.

And these things are happening in many, many cases.

I believe it is very unfortunate that the country does not get the proper impression of our work. The wrong impression undermines our effectiveness in defense, undermines the morale of the people. We really ought to advertise the points of agreement.

Senator HATCH. It not only undermines the morale of the people, but also, I think, very decisively undermines the cause of labor itself.

Mr. HILLMAN. I am speaking also of the morale of the people. Here we are engaged in a great defense effort; if these people are led to believe that groups of labor do not cooperate, of course it hurts national defense.

I am not for keeping the information away from our people. But if we could only keep it in the proper proportion, and say "Yes, we have strikes, but they are less than during the last war." They are actually less than when we were engaged in the World War effort. I am satisfied, Senator, and I don't like to prophesy—it is a very poor time for anyone to prophesy—but I believe we are going into an era of even greater collaboration and cooperation between management and labor in the months to come.

Senator HATCH. I think we certainly must.

Mr. HILLMAN. The assuring thing, Senator, is that we are.

Senator HATCH. That is fine.

Mr. HILLMAN. I think we are.

Senator HATCH. Could you give us anything specific upon which to base that, Mr. Hillman?

Mr. HILLMAN. First, the record is that there are less strikes right now. We have had less strikes than during the last war—actually at the time this country was engaged in the effort of actual war. There is a tremendous increase in the working population, Senator; right now we have an increase—I have to look up our statistical information—of probably 10 or 15 million people generally employed in the country, and therefore you have a much wider field, you know, to cover.

My first experience, which was the most heartening thing to me, was the first week when I came here. You gentlemen know there has been, and still is, a little friction in the labor groups, between the A. F. L. and the C. I. O.

Senator HATCH. We have heard something about it.

Mr. HILLMAN. We have had some association with that. I knew it, and I also knew we couldn't possibly carry on the effort unless we could find a basis of bringing these groups together. Some of my closest friends, when I suggested to them that I would ask the A. F. L. and C. I. O. to appoint a group of people who would meet together on one advisory council, told me, "Sidney, you're just kidding yourself. It is impossible."

In less than 10 days, there was a Labor Advisory Committee of the A. F. L., C. I. O., and the Railway Brotherhoods; and what is important, the record will show that at no time was there a disagreement between the A. F. L. and C. I. O. in those conferences, and we meet regularly. And there was never a question of anyone finding fault with any step necessary to help national defense. That is a good

demonstration that labor knows what is at stake for the country and for labor in this great emergency.

Senator HATCH. Well, as I said, with your statement of basic policy, I think that statement is exactly correct. I think labor has perhaps the most important stake in this controversy of any group of our citizens.

Mr. HILLMAN. In 24 hours, if the unfortunate something should happen in this country, all the gains of labor will have gone. I think it wouldn't take even that much time, and I say, gentlemen, the rank and file of labor, the leadership of labor, are fully aware of it. What we are suffering from, of course, in the labor ranks, as well as throughout the country, is that most people don't appreciate the urgency, don't appreciate how urgent it is that we have speedy action. What to do about it, gentlemen, you know more than I. You have been in contact with this. It is to make everyone in the country aware of the danger, that we cannot postpone action for 24 hours. Whatever can be done today should have really been done yesterday. We certainly ought not postpone it a day longer.

I have approached the situation with faith and confidence in the goodwill of labor and the goodwill, generally, of management. And I would say to you, gentlemen, that 10 months' experience has confirmed and reaffirmed my faith. Based on this policy of mutual confidence, channels are being provided for greater and greater cooperation. We needed a Mediation Board. We probably should have had a Mediation Board 4 weeks before. It was necessary.

I believe that in the field of labor relations today, beginning with conciliation and the Labor Relations Division of O. P. M., and the Mediation Board, that we have all the mechanisms for proper mediation, and it is my judgment that we will cope with the problems ahead of us.

Senator HATCH. Do you anticipate, Mr. Hillman, that with those agencies, or with that machinery, it will be possible to settle labor disputes in the coming months without stoppage of work?

Mr. HILLMAN. Well, not in all instances, Senator. You know, some people will get excited about some things. Labor or management will get stubborn. The record, though, is that, outside of a very few instances, we have had success. In most cases, of course, we have avoided strikes, and where strikes took place we settled them quickly, and a quick settlement means no delay in the defense program.

Senator HATCH. I asked that question because that is the point which is disturbing the general public. I don't think the public has any quarrel with labor for insisting upon its just demands, but it has a quarrel with the stoppage of work in essential defense industries.

Mr. HILLMAN. We are all doing all we can to avoid it. I believe the record is a good record, and I believe we are going to get a better record as we go along. My faith is based on the realization that labor has so much at stake in the defense program that anything that will interfere with the quick building up of strength in the defense line will hit labor harder, if that is possible, than the rest of us in the country.

Senator HATCH. I quite agree with that. Thank you, Mr. Hillman. That is all.

The CHAIRMAN. Senator Ball?

Senator BALL. Mr. Hillman, I was interested in what you just said, to the effect that we probably should have had this Mediation Board

4 weeks before we had it. It occurs to me that of this first wave of strikes and disputes we had—and, mind you, I am not blaming labor for strikes—I think at least as many were due to unreasonable attitudes on the part of the employers as to unreasonable demands by unions; but it seemed to me they came when we hit an up curve of industry, when this tremendous expansion program really struck. They have calmed down now because some of that adjustment, the major part of it, has been made.

But aren't we likely to hit another peak? I noticed your figures on the number of new workers you have to train by December 31. Under this lease-lend bill, there is going to be a tremendous expansion in these defense industries. Won't you hit another period of aggravated troubles in industrial relations due simply to the fact that you are going to have a lot of new management in there, and a lot of new union members that just aren't old hands at the game? Shouldn't we begin to get set for that, and try to be prepared for it beforehand?

MR. HILLMAN. Of course, Senator, we are trying to get ourselves organizationally in the position where we can meet any and all of the problems. But we ought to have a great deal more confidence in the situation, analyzing what has happened in the last 10 months. I don't like to get into individual cases, because that would be unfair to the companies and the labor organizations involved. In some of these things that were crowded over the headlines, the strike lasted a little less than 36 hours, with obviously no interference to defense industries. They were very aggravated cases between labor and management, but we got them settled within 36 hours. Why? Because we have today a spirit of cooperation. When we put the spotlight on it, neither labor nor management, in individual cases, will stand up and take a position that is considered unreasonable. I don't mean that there will not be a case here and there.

Now the training program is one of the things that the Labor Division is very proud of. We have started a program of training a great number of the unemployed, a program which most people in the country thought was a waste of time. We started it the first day we came in. We put all our school systems to work. The N. Y. A. practically turned into a training program. And other governmental agencies did likewise. Then we called a conference of the outstanding industrialists. We called in Mr. Owen D. Young at that time and had him call in a group of large industrialists and a large group of labor for training in industry. We foresaw that a general program of training should not be stopped because of our prior notion that there was too much labor.

Now let me say to you that I didn't expect that conference to come to real agreement before at least 10 days. I sat in a couple of days to see that they harmonized any differences. I was amazed that in less than 48 hours, they reported complete agreement on every point at issue. Now we have gone further and are capitalizing that.

As I have stated here, we have now set up this training within industry. We have throughout the country 22 T. W. I. field offices, with labor and management cooperating locally. Now we believe that as we keep on making further progress, we are going to have less trouble, because that spirit of cooperation is taking form in every place in the country.

Otherwise, gentlemen, we just could not meet the requirements that we are meeting today, to have 816,000 people going through the schools to find and make available hundreds and thousands of people in many parts of the country who have skills and are not utilizing them.

Now we know what we will have to do in shipbuilding, which probably is our biggest program, but already we have started the actual work; we have the personnel for it on the Pacific Coast. We have picked the best training men from the aircraft industry, and the companies are willing to let us have them. We have a labor and a management group on that Shipbuilding Stabilization Committee, representing all of labor and all of management, and representatives of the Maritime Commission and the Navy. Part of their responsibility now will be to see that we get the proper people trained. In other words, we are finding that every one of these agencies is helping us instead of raising barriers.

Now that is my experience, and that is, Senator, why I am hopeful about any future problems that may arise.

Senator BALL. You agree the problem is going to be difficult, as you meet this new expansion?

Mr. HILLMAN. More and more.

Senator BALL. You mentioned the Minneapolis-Moline situation; that happens to be my home State. You know we have a cooling-off period in the Labor Relations Act there under which that dispute was certified to a State conciliator for 10 days, and he worked on it; then because this particular industry was affected with the public interest, the Governor invoked an additional 30-day waiting period, during which a commission investigated the whole thing and recommended a settlement, which I may say was accepted by the union but turned down by the employer. But don't you believe that that 40 days of mediation effort was probably largely responsible for the fact that these boys got together?

Mr. HILLMAN. If you have reference to the fact that you have a legal waiting period, I could go over case after case where, without any laws, in Connecticut and other places, we had as many as 90 days' notice. In many instances, my division told the boys, "Now even if it looks hopeless, don't go out on strike." I also think that inspired this Moline situation. Then we asked them for a further waiting time, with no law, and they gave it to us.

Senator BALL. They have been negotiating and extending this waiting period right along, and they were talking all the time.

Mr. HILLMAN. We are trying to keep them talking while the process of finding a settlement is going on. I don't believe there is a single case where a settlement cannot be found on any issue. As a matter of fact, it must be found because we have to keep on producing; and fortunately, fewer and fewer people are impatient; fewer and fewer instead of more. I think it will continue to be fewer, and I think our contribution, and that means all of us, ought to lie in trying to support and encourage that feeling. I have gone 30 years on that basis of having confidence that people will try to do the right thing if given an opportunity—labor being assured that their proper needs will be taken care of, and management being assured that whatever arrangements are made will not fundamentally impair their businesses. I repeat that in this great emergency, our greatest asset is cooperation.

I believe we can meet any totalitarian system that is based on coercion and outbuild them, outdo them in every way, if we give our attention to organized cooperation, and consolidatedly encourage it in every way.

Senator BALL. Mr. Hillman, I noticed in the President's Executive order setting up the Mediation Board that he requested that both employers and unions, before there is any work stoppage, certify their dispute to the Conciliation Service and then to the Mediation Board, if that became necessary. In other words, he wanted full opportunity for the Government to mediate before there is a strike.

Mr. HILLMAN. That is right.

Senator BALL. And I take it that all of the international unions are cooperating?

Mr. HILLMAN. That has been going on for all of 9 or 10 months.

Senator BALL. There are, of course, a few local unions that don't listen to their internationals, and go ahead and walk out?

Mr. HILLMAN. Very few; the local union may get into an excited meeting and walk out, if it happened that we didn't have a man right in the district who went over to the officers and said, "Now, here, no strike; you will go right to Washington." But even if a stoppage had occurred, I feel it would have been settled in 48 hours.

Senator BALL. You are getting this voluntary cooperation, I agree, in 95 percent of labor, but that 5 percent that doesn't cooperate may be in a key industry, making something the stoppage of which would hold up a vital part of the program. What objection is there to legislation requiring the 5 percent that won't cooperate voluntarily to cooperate and have a cooling-off period, which does not, I think, hurt anybody?

Mr. HILLMAN. The objection is really not to the cooling off. The question is simply which is the better way to accomplish that desirable result—whether you are going to have it by putting people on their good faith, by their living up to their "contract." We have an understanding with all these labor organizations connected with national defense that they will give us time. Now, if we have at present one-tenth of 1 percent on strike—I don't think there are 5 percent who are not keeping that understanding—I wonder whether we are not going to have more violations if you enact legislation where it is no more a question of cooperation but just, "Now, you either do it or——." I would say that ought not to be tried while cooperation works, and I believe it will continue to work.

Senator BALL. But say cooperation breaks down when we hit this expansion, are we going to wait and remedy it later? You admit that we would have saved some trouble if we had had this Mediation Board 4 weeks earlier.

Mr. HILLMAN. That board was not created through legislation; that would have taken a longer time. Just as we thought it might become necessary, we recommended the creation of the Mediation Board. I think that Congress could be assured that if the Board felt it needed additional powers, it would so inform the Congress. Of course, it would become our responsibility to advise the Chief Executive.

Senator BALL. Of course Mr. Knudsen thinks you need it right now, and it has occurred to me—I watched it happen in my State, where we had a lot of "quickie" strikes, and it was a very small minority

of organized labor, maybe only 4 or 5 percent, but they gave the whole labor movement a black eye and it took some maneuvering of our legislature to stop some very drastic and deliberately antiunion legislation which I think would be very bad.

Mr. HILLMAN. The worst strike that has happened, as far as I know, was in the State of Wisconsin, where I think there is a law requiring a waiting period, on the statute books. In Michigan, you have a similar provision and we didn't have any really serious strikes but we settled them quickly.

Senator BALL. But you have a lot of other things in those two laws. They are not really effective.

Mr. HILLMAN. You understand the reason for goodwill, for cooperation; it is simply a question of telling the State that you are going to strike before you really expect to do it.

Senator BALL. That happens.

Mr. HILLMAN. There is no guaranty; a real guaranty is good faith and proper support and cooperation. I would say—I am giving you my own experience—we will make less mistakes by having confidence in cooperation and following it through. If you would like the reasons for all of the strikes over the past 10 months, we will be glad to supply the information to you.¹

Senator BALL. I would like to have it.

Mr. HILLMAN. I would also like to supply to you where the effect of these strikes was, and how they were handled.²

Senator BALL. I would like to see a copy of that maritime agreement you were talking about.³

Mr. HILLMAN. I can send it over and I feel confident that before 6 weeks are over, surely not more than 2 months, this agreement will cover the whole shipbuilding industry, the east coast, the South, and everywhere, and you will have real assurance of no interruption of work and the speediest kind of production.

Senator BALL. Are you trying to negotiate this agreement with other industries and the internationals?

Mr. HILLMAN. We are trying it out in shipbuilding because it is one of the most important things, and then we will see how it works before we talk about other industries.

Senator BALL. How do you feel about this cooling-off period? I think it applies equally to employers; I think there are plenty of employers that are for strikes in this picture because they think it would be a good way to bust unions. I think the cooling-off period will not hurt either side. I was wondering what your attitude was.

Mr. HILLMAN. It has been my experience in the labor field that we have always told our people to get an agreement; after you have an agreement, forget about the terms of the agreement and substitute cooperation. Every time an employer dealing with a labor organization has to look over and see exactly what the agreement provides, that is, to me, a trouble signal. When there is cooperation, you know you are not looking at exactly where the border line is. I say, gentlemen, and I am giving my experience in this greater effort, I think we will make a mistake if we get away from the line of coop-

¹ See table entitled "Major Issues Involved in Strikes Ending in 1940," which appears in the appendix on p. 386.

² See list of strikes in defense industries, appendix, pp. 386-391.

³ Appears in appendix on pp. 392-393.

eration. I will say that any study of what has happened in the last 10 months and what is happening now shows there is a number of matters that I could not possibly feel at liberty to discuss publicly, but even the most aggravated situations, you will find if you go through the details, are situations that do not call for any drastic measures. They call, in my judgment, for the confidence that we can handle it.

Of course, gentlemen, the ways of democracy are at times a little more troublesome, but in the long run, in my judgment, more effective, because once you get cooperation you have something. If you haven't cooperation, what have you got? Nothing. People may be encouraged today; you don't know how they will act 4 weeks from now.

Senator BALL. Isn't it democracy to have the procedure in this labor relations picture apply equally to everybody?

Mr. HILLMAN. Quite right, sir.

Senator BALL. You can't quite do that by voluntary cooperation, because you have always this minimum of 1 or 2 or 5 percent that won't cooperate.

Mr. HILLMAN. Maybe the 5 percent will be disturbed about it; it hasn't reached that percent as yet, Senator.

Senator BREWSTER. As I understand you, you are Associate Director under the Office of Production Management?

Mr. HILLMAN. That is right.

Senator BREWSTER. And what are your precise duties?

Mr. HILLMAN. My major responsibility is the labor field. I have taken that over from the Defense Commission. Mr. Knudsen and I believe also in that spirit of cooperation, so we haven't written out any rules and regulations. When I am troubled about something I walk over to his room, or he walks to my room; we discuss general problems, and so far I believe the record will show that we have done fairly well, at least in cooperation.

Senator BREWSTER. You are familiar with the studies of the Industrial Mobilization Plan by the War Department over the past 2 years?

Mr. HILLMAN. I have read it.

Senator BREWSTER. And why do you feel that a departure from the program they recommended is now wise?

Mr. HILLMAN. Because situations have been changing entirely all the time.

Senator BREWSTER. And in what respect?

Mr. HILLMAN. When they drew up all these figures, I don't believe they conceived at that time the amount of training for skills that was required. Anything on paper ahead of the actual fact always needs modifications to meet the requirements of the moment. I would say no matter who would draft anything today, it would probably need a revision a year from now.

Senator BREWSTER. You were for a good many years the executive head of a considerable organization?

Mr. HILLMAN. I am still the head of it; I am on leave of absence.

Senator BREWSTER. And you have, I presume, a board of directors, advisers?

Mr. HILLMAN. I have a board of directors.

Senator BREWSTER. Anywhere in your organization do you have a two or four-headed executive organization?

Mr. HILLMAN. You mean just in the chart?

Senator BREWSTER. Yes.

Mr. HILLMAN. Well, we have a general secretary and general president. The best labor organization usually has two heads.

Senator BREWSTER. Two heads?

Mr. HILLMAN. Not written in the Constitution; two outstanding, two general officers. If they cooperate, the results are better than if each one insists on his prerogatives under the Constitution. That is my judgment, Senator, for whatever it is worth.

Senator BREWSTER. What are your relations with the two Secretaries?

Mr. HILLMAN. The two Secretaries? Well, I think they have been very—

Senator BREWSTER (interposing). I am sorry you have to be reminded of them.

Mr. HILLMAN. I was wondering. The two Secretaries, you mean in O. P. M.? Things have been very cooperative. I don't know of any differences that have arisen.

Senator BREWSTER. I mean as to your actual functioning.

Mr. HILLMAN. Well, they complete the group of O. P. M., laying down policy.

Senator BREWSTER. Policy-making?

Mr. HILLMAN. Its carrying out is under Mr. Knudsen and me, Mr. Knudsen as director and myself as associate director.

Senator BREWSTER. Now when you come to actually applying those policies, how is the distribution of functions arranged? Who actually approves contracts, for instance?

Mr. HILLMAN. Contracts are approved by the Army and Navy. O. P. M. does not have the actual responsibility for contracts. We merely advise. We give them the benefit of our knowledge.

Senator BREWSTER. And do you individually advise, or do you collectively advise?

Mr. HILLMAN. I wouldn't say that we advise individually, the organization advises. If it is a production problem, the head of production is in contact with it.

Senator BREWSTER. When was the last meeting of O. P. M.?

Mr. HILLMAN. About ten days ago.

Senator BREWSTER. And when was the last meeting before that?

Mr. HILLMAN. I would have to look that up; I think we meet usually once or twice a week.

Senator BREWSTER. At that time, do you take up the individual matters of administration or simply questions?

Mr. HILLMAN. Just questions of general policy, or if something should arise where any one of the four would like to get the reaction of the others. An agenda of matters to be taken up by the meeting is usually prepared by Mr. Knudsen and me. The Secretaries, if they care to, raise other questions and, of course, they can do it by preparing their agenda.

Senator BREWSTER. You realize that the organization which is now functioning is widely at variance from the recommendations of the Industrial Mobilization Plan, do you not?

Mr. HILLMAN. So many things are added.

Senator BREWSTER. That it does depart also from the organizational set-up which is customary both in industry and in labor?

Mr. HILLMAN. That I would not say. But, Senator, frankly, the responsibility for policy, of setting up the policy for national defense, of course is neither mine nor Mr. Knudsen's. We are trying to carry out to the best of our ability the job entrusted to us, and I would say we have tried to demonstrate, at least to ourselves, that the capacity of two instead of one has not, in our judgment, interfered with carrying on the program.

Senator BREWSTER. I didn't mean in any of my questions to challenge the sincerity of your effort.

Mr. HILLMAN. There is the question that we are not responsible for the policy-making.

Senator BREWSTER. Of course it is only through you, we can learn as to how successfully it is functioning.

Mr. HILLMAN. Well, Senator, we are giving you the facts. It is for you to determine whether it is successful or not. I am giving you the best I know now.

Senator BREWSTER. How serious is this coal situation?

Mr. HILLMAN. I prefer, Senator, of course—if I am pressed for an answer, I will answer to the best of my ability, but I would prefer at this time, while all kinds of negotiations are going on—I believe anything I might say would not be helpful to the situation. In view of the fact that coal is as big a problem as it is, I would prefer not to answer.

Senator BREWSTER. Can you, not referring now to the coal situation but to the conditions in this country and abroad, conceive of our country being in a more critical condition short of war?

Mr. HILLMAN. No, no; neither short of war or, frankly, I consider even at war. I consider that we may have to pay so much more in the future for anything that needs action today that people who appreciate the urgency of the situation should not consider that there is any emergency that calls for more than at present, Senator. That is my judgment.

Senator BREWSTER. Mr. Knudsen,¹ in testifying here, in response to questions about subversive influences operating in strikes, about which, of course, we have heard a great deal in the papers, simply said there were some things he didn't like about some of them. What would you say about that?

Mr. HILLMAN. I would say that subversive elements play a very insignificant part in the picture. I would say wherever they are, they may take advantage of a situation that makes for unrest, but the general labor movement in all of its parts is so much opposed to the subversive elements that they could not really stand on their own. Whenever the spotlight is put on a subversive situation they will get out of the picture, in my judgment.

Senator BREWSTER. In what ways has organized labor undertaken to meet this particular problem?

Mr. HILLMAN. In place after place, resolutions have been passed by State organizations, prohibiting people who are members of certain parties, from holding office. Other people consider it enough to advise the membership not to entrust leadership to people who are affiliated with these groups, but I don't know of any group of any organization that would stand up and endorse any of the subversive elements.

¹ Mr. Knudsen's testimony appears *supra*, pp. 99-117, et seq.

Senator BREWSTER. When you speak of parties, do you mean Communist?

Mr. HILLMAN. I mean Communist, Nazi, and Fascist.

Senator BREWSTER. Do you think those terms may safely and properly be used to define the elements we don't want operating in our labor movement?

Mr. HILLMAN. There are others, home grown.

Senator BREWSTER. I am asking about those.

Mr. HILLMAN. I think you have now what we call the totalitarian's challenge, covering the field of the Communist, Nazi, and Fascist groups.

Senator BREWSTER. Have you found any evidence that these activities had an alien inspiration?

Mr. HILLMAN. Anyone who is a student of these movements knows it is all alien inspired. I don't think their inspiration comes from anywhere but abroad.

Senator BREWSTER. And our Federal Bureau of Investigation has been giving attention to that, has it?

Mr. HILLMAN. Well, we follow the activities of the Department of Justice in their work along that line; they are there for that purpose; they are equipped to handle it. We believe it would be inadvisable for any other agency of Government to get into that situation.

Senator BREWSTER. And you are in entire sympathy with all efforts to expose anything of that character?

Mr. HILLMAN. No question; not only in sympathy but I consider it absolutely essential to our program that labor groups, and especially the newcomers, should be given proper information of the danger not merely to the country but to the labor movement generally from these influences, because the labor movement itself, its aims and objectives, are opposed to all these other groups. These "isms" are the annihilation of the very basis of a soundly constructed labor movement.

Senator BREWSTER. Nothing you feel would be more damaging to the labor movement than the disclosure of anything of that sort?

Mr. HILLMAN. I didn't quite get that, Senator.

Senator BREWSTER. That these influences were using the cloak of organized labor to carry out their sabotage.

Mr. HILLMAN. Purposes of their own. Their purposes are not those of the labor movement; never have been and never will be, because they are opposed to any concept of what democracy stands for, and the labor movement can only thrive under a democratic form of government and democratic institutions.

Senator BREWSTER. How many citizens at present are enrolled in what is called the organized labor movement?

Mr. HILLMAN. Well, of course, Senator this would have to be an estimate; I would say probably above 8,000,000 in all the groups; whether it would be 9,000,000 I don't know, but I would say that the labor movement today represents the major groupings and, even in our defense industries, even where people do not belong to organizations, there is a sufficient organization to influence the policies of the industries.

Senator BREWSTER. Your feeling apparently, as indicated here, is that any further statutory action at this time might be unfortunately interpreted by organized labor?

Mr. HILLMAN. I think anything we do right now that would show a lack of confidence that we can deal with our labor problems on the basis of cooperation would rather give aid and comfort to people who are opposed to our national efforts, both here and abroad. I believe that the question of regulations by law has to come gradually, not to be rushed before that time. My own hope is that we will not have to do it.

Senator BREWSTER. Addressing ourselves for the moment entirely to the situation in this country, rather than how our actions may be interpreted elsewhere, I take it that you speak primarily for the organized labor movement and the appraisal of its views, and the effects upon it.

Mr. HILLMAN. I think, Senator, I am not speaking for the labor groups alone; I think that it will affect all of industry. I think when you start regulating you have to continue, regulating more and more. I would say that we would be better off, that we would all be better off, to go on with this policy we are pursuing right now, especially in view of the experience we have.

Senator BREWSTER. You feel sure that you are not reflecting upon the patriotism of labor in intimating that they would resent any action at this time calculated at least to give time for discussion?

Mr. HILLMAN. Senator, we are not dealing in groups of labor, industry and government; we are dealing with millions and millions of workers.

Senator CONNALLY. I don't think the witness has answered the question. I don't think that answer is responsive.

Mr. HILLMAN. I don't believe I am reflecting on their patriotism; I think it is simply a question of which is the best way of getting the desired results. I don't mean that labor is going to call a strike.

Senator BREWSTER. What was your attitude as to introducing the "or else" argument into our dealings with industry when we provided in the Selective Service Act that the President might take over a plant that didn't cooperate? How did you feel about that?

Mr. HILLMAN. We have accepted your legislation.

Senator BREWSTER. You approved of that?

Mr. HILLMAN. Yes.

Senator BREWSTER. You thought that was all right?

Mr. HILLMAN. Yes.

Senator BREWSTER. You didn't feel that this cooperative talk you made applied to that situation?

Mr. HILLMAN. No.

Senator BREWSTER. You didn't feel industry should resent a gun at its head?

Mr. HILLMAN. No; because you are dealing with a plant here; we need facilities. Now when we need the facilities and the facilities are not available, we have to find a way to make them available to the Government.

Senator BREWSTER. How did you feel about the Selective Service Act?

Mr. HILLMAN. All for it.

Senator BREWSTER. That doesn't leave much for cooperation.

Mr. HILLMAN. Pardon me, that is entirely a field of protection, safeguarding the country, and it is entirely different; has no basis of comparison with labor relations.

Senator BREWSTER. What would be the position of my boy who happens to be in a training camp in Florida now, if he couldn't have a gun?

Mr. HILLMAN. The same as my son-in-law who is going, feeling that it is the proper thing to train himself to defend the country in case of emergency.

Senator BREWSTER. A very admirable attitude.

Mr. HILLMAN. That is right.

Senator BREWSTER. Which the boys are taking.

Mr. HILLMAN. That is right.

Senator BREWSTER. But it does involve in millions of cases the element of compulsion?

Mr. HILLMAN. Yes; it does involve that, but we are going to defend the very things that we consider important.

Senator BREWSTER. The rights of labor?

Mr. HILLMAN. That is right. Now I say keep those rights as long as you possibly can, especially when there is no danger arising from keeping them. I think it is all to the good.

Senator BREWSTER. Now the committee is starting today to meet the problem of financing this great program and raising three billion and a half in addition to the 9,000,000,000. I take it you will recognize that there is not going to be primary dependence upon cooperation in that case?

Mr. HILLMAN. No.

Senator BREWSTER. That is going to be compulsion, isn't it?

Mr. HILLMAN. That is right.

Senator BREWSTER. And you are in favor of that?

Mr. HILLMAN. Yes.

Senator BREWSTER. You recognize that only in that way can the problem be solved?

Mr. HILLMAN. That is right, in a fair way.

Senator BREWSTER. So that in the position of industry, in the position of our training manpower for military purposes and in the field of providing the resources, we are in every case using definite statutory action?

Mr. HILLMAN. That is right.

Senator BREWSTER. Now when it comes to the suggestion that labor should wait 30 days before the strikes you think labor wouldn't stand for it, or labor wouldn't welcome it?

Mr. HILLMAN. I didn't say that.

Senator BREWSTER. Do you think you are reflecting on labor?

Mr. HILLMAN. I didn't say that. Now, you are not suggesting, Senator, compulsory labor. No one suggests that, so there is no comparison at all. We are—none of us—suggesting compulsory labor. The question arises under a free system: which is the best way to get continuous production? It is merely a question of what we are going to do to get the best kind of results. My judgment is that we are getting better results in furthering more and more cooperation.

Senator BREWSTER. Do you—

Mr. HILLMAN (interposing). Now, that does not mean, Senator, that labor will rise in protest against it. I am simply giving you my best judgment that we should not make rules which apply only in a very few exceptions and those exceptions will probably not be regulated by law. We have an arrangement with all these organizations where they give us ample notice, and they are doing it.

The CHAIRMAN. Mr. Hillman, there isn't any doubt in your mind that if the Congress, in its wisdom, decided to pass a law for cooling-off periods, that labor wouldn't wholeheartedly comply with it, just as they complied with the draft act?

Mr. HILLMAN. We would comply with any law that Congress will deem wise to pass, but I understand it is my responsibility, before your passing of such a law, to give you the best of my judgment, where there is the need for it. That is about all there is to it.

Senator BREWSTER. We did pass certain legislation dealing with the labor situation here the last 2 or 3 years, setting up certain instrumentalities and making certain provisions as to dealings between employers and employees, with all of which I assume you were in accord and sympathy?

Mr. HILLMAN. Well, I accept them; they are the laws of the land.

Senator BREWSTER. You thought they were at least statutory?

Mr. HILLMAN. They were needed and I say again that experience has shown their usefulness.

Senator BREWSTER. Now, in what way would the rights of labor, developed over a long period, be certainly prejudiced by the provision of a cooling-off period?

Mr. HILLMAN. I don't think that the rights of labor would be impaired. It is simply, as I say, a question in my mind which is the better way of handling a situation, the objective being continuous uninterrupted production.

Senator BREWSTER. You appreciate, of course, that coupled with that proposal now pending in the other House there are certain other provisions which go somewhat further?

Mr. HILLMAN. I have studied some of these things and they would in my judgment definitely impair labor relations.

Senator BREWSTER. There is a clear distinction?

Mr. HILLMAN. Yes.

Senator BREWSTER. You will understand my reason for concern when I tell you that we are engaged in building \$300,000,000 worth of ships up in Maine, largely for the Government, and that I am advised by all the authorities there that within 10 days, our entire system of transportation and activity will be paralyzed if we don't get some coal. What are we going to do?

Mr. HILLMAN. I say on the coal situation it is being handled by the Labor Department right now. I would not feel free to discuss it and, as a matter of fact, I couldn't be helpful to you at this moment in discussing it.

Senator BREWSTER. Well, if this won't trespass upon the proprieties, did that come within the zone of your functioning? Was it a matter that came to your jurisdiction?

Mr. HILLMAN. As far as O. P. M. is concerned, we are trying to cooperate with every one of the existing governmental agencies; we help the Labor Department, we help the Mediation Board, we are giving them the contact through industrial advisers and labor advisers, experienced men. That is really our contribution. We are not stepping in to take over the functions of the existing governmental agencies.

Senator BREWSTER. When any of these matters are brought to your attention do you immediately communicate with the appropriate agency?

Mr. HILLMAN. With the appropriate governmental agency, and I am advised that the proper person has been assigned to handle that situation. I just stand by until help will be called for from my division.

Senator BREWSTER. And do you from day to day keep other agencies advised of the more and more serious impact of some of these situations?

Mr. HILLMAN. That is right; I call up the Department of Labor and say, as I have told you today—in one case I said I would like to have that particular case follow a certain course.

Senator BREWSTER. Approximately how many men are idle in the coal industry at the present time?

Mr. HILLMAN. I suppose over 400,000; that is the estimate.

Senator BREWSTER. And you feel that all the authorities concerned recognize how critical the situation is?

Mr. HILLMAN. Well, it was not critical before, but it may become critical now. I would not like to enter into a discussion of that situation, but in reading the newspapers this morning you know that is more than a labor situation; there is a difference of opinion between the coal operators. Therefore, I would feel very reluctant to enter into a discussion of it.

Senator BREWSTER. On the broad aspects of our industrial—

Senator CONNALLY (interposing). May I interrupt you right there? Then you have no views on the coal strike at all?

Mr. HILLMAN. My view is that it ought to be settled as quickly as possible.

Senator CONNALLY. Have you done anything to help settle it?

Mr. HILLMAN. It is being handled by another division.

Senator CONNALLY. Have you done anything? You are over there on the O. P. M. Have you done anything to try to help settle the coal strike? You know whether you have or not; I don't.

Mr. HILLMAN. I believe that is being given all the attention right now.

Senator CONNALLY. Then you haven't done anything about it?

Mr. HILLMAN. I have been consulting with people and discussing with them, not the merits of the details, but keeping in touch with that situation.

Senator CONNALLY. If you haven't discussed the merits of the details, you haven't done much about it?

Mr. HILLMAN. The Labor Department is handling it through one of its conciliators.

Senator CONNALLY. I didn't ask you what they were doing. I asked you what you were doing. Have you done anything to try to settle the coal strike?

Mr. HILLMAN. No; it is our policy to leave—

Senator CONNALLY (interposing). Then you haven't?

Mr. HILLMAN. No; that is right.

ALLEGED ABUSES IN FIELD OF LABOR

Senator BREWSTER. You are familiar with the matters which are now going on under jurisdiction of Mr. Thurman Arnold about certain abuses in the labor situation, are you?

Mr. HILLMAN. Just reading the newspapers.

Senator BREWSTER. Just from what you read in the papers, that is all you know about it?

Mr. HILLMAN. That is right.

Senator BREWSTER. Although you are the associate director of our entire industrial procurement program?

Mr. HILLMAN. I would not say it is my province to go into that with Mr. Arnold on things like that. If I should handle it, he, of course, would communicate with me.

Senator BREWSTER. I heard Mr. Thurman Arnold state publicly that in one situation in this country he found the Government unable to put glass in the windows in its plants because there were no glaziers and they demanded a joining fee of \$1,500 to join the union. Are you familiar with that?

Mr. HILLMAN. I have followed it up; I have seen the statement in the newspapers.

Senator BREWSTER. Was that correct?

Mr. HILLMAN. And the statement to me is that it wasn't \$1,500, but in one local union I think the fee has been \$250. I have written to the union that I believed that is entirely too much. The statement by Mr. Thurman Arnold that the charges were \$1,500 was not in accord with the facts as given to me, after Mr. Arnold made that statement. Of course, then it becomes my responsibility to look into the matter; I did not have particular reference to that.

Senator BREWSTER. Did you follow this situation in the cantonments over the country where this question of joining fees arose?

Mr. HILLMAN. Wherever complaints arose, I have communicated with the Second Assistant Secretary of Labor, who then took it up with those organizations, to go into the individual complaints. I understand in some places the actual fees were high; in other places, the statements were exaggerated, but we have followed this thing by turning it over to the labor organizations and in following them through.

Senator BREWSTER. Have you or your statistical division explored how much that has amounted to over the country?

Mr. HILLMAN. No, we have just taken the complaints that have been brought to us and we turned them over to be followed through.

Senator BREWSTER. Isn't there a little broader interest than whether or not there is a complaint? Isn't there a question of its effect on our procurement program?

Mr. HILLMAN. The whole procurement program in construction is, in most of the places, ahead of schedule. We went a little further than that.

Senator BREWSTER. With the cantonments?

Mr. HILLMAN. You have to bring in skilled labor, in some places, a thousand. I would say that, as far as the labor organizations are concerned, they have given the utmost cooperation. When these complaints came up, we did not merely follow it through from the point of view of whether it actually interferes with production, but whether these things do exist, and if they are unfair, to draw it to the attention of the responsible representatives of the labor groups.

Senator BREWSTER. Did you feel at any time that the situation with particular regard to certain skilled trades was susceptible to quite serious abuse?

Mr. HILLMAN. How is that?

Senator BREWSTER. The situation with regard to certain of the skilled trades, did it present quite serious possibilities of abuse?

Mr. HILLMAN. I have reported what we are doing here.

Senator BREWSTER. I will give you a specific instance, then; I would like to know what you think about it. This is a specific case. How typical it is I do not know. I visited Camp Blanding, Fla., about which I think we are going to hear more later,¹ and I found that they employed some 6,000 carpenters at the peak with a total turn-over of 12,000; that the joining fee—they all had to be certified by the local union in Jacksonville—was \$50 in Miami, which meant that if they collected all they were supposed to get they got about \$600,000 out of that job. Now that presented to me a very interesting social and economic question. First, as to who got the money, and what became of it; and, second, as to the equity of a man who obviously was unskilled. I don't think you would contend that 12,000 carpenters were produced out of thin air. They were what were called Sears, Roebuck carpenters. They got a \$5 set of tools from Sears, Roebuck and they were carpenters. Now, I don't know how typical that is, but I would like to know how you feel about it, Mr. Hillman.

Mr. HILLMAN. My answer to you is that when this matter came to our attention, we immediately took it up with the people who are representing the construction industry on the Labor Advisory Board; took it up through the Second Assistant Secretary of Labor, Mr. Tracy, to follow it up for me—which I put in the record to show we had an interest not alone in production. I don't believe there was any question of production delay because of it, but we took it up because we believed that that matter ought to be looked into. Now in individual cases, it has been reported to me that adjustments were made and money was turned back. Of course, I didn't follow each individual case. If you have an interest, as you have, you will ask me what is it that we ought to do. Whatever information you desire on that particular subject matter, I will of course, see it made available to you.

Senator BREWSTER. I believe Congress——

Mr. HILLMAN (interposing). May I continue? We have gone further than that and have said we want some action, again in the cooperative way. We have no power, and this is the resolution that all the building trades passed on March 29, 1941. May I read it for your information, or have you seen it?

Senator BREWSTER. All right.

Mr. HILLMAN (reading):

Whereas there have been many newspaper articles of criticism and condemnation directed at the building and construction trades organizations of the American Federation of Labor in relation to the collections of permit moneys—

that is what we have reference to—

privilege dues and initiation fees on defense construction projects; and

Whereas the volume of unfair and unjust propaganda is a reflection on the integrity of the building and construction trades department of the American Federation of Labor and has been the cause of creating doubt as to the integrity of our organizations in the minds of the general public, Government officials and many Members of Congress: Be it

¹ Testimony on this subject appears *infra*, *passim*; and in Hearings, Part 4.

Resolved, That in the event of any of our building and construction trades employers who are recognized as being fair to organized labor secure contracts for the building and construction of defense projects; be it further

Resolved, That where any and all of the building and construction trades organizations are unable to supply a full force of building tradesmen to man such projects each and every organization affiliated with this department agrees that such union employer shall be privileged to employ other than members of the various building and construction trades affiliated with the department and are able to replace these nonunion men with members of their organizations, or until such nonunion men are requested to become members of their respective unions; and be it further

Resolved, That where such conditions exist no permit or privilege moneys shall be collected under any circumstances.

That means that they should be permitted to work without any fees of any kind.

No initiation fees or other union obligations shall be collected from these non-union men except where they can qualify for membership or have been requested to become members of their respective organizations and have been accepted, be it further—

That means if they want really to remain in the trade or have been requested to become members thereof.

Resolved, That when such applications are received that the initiation fee shall be the minimum possible in view of the benefits received in such organizations, and that reasonable time will be granted for the payment of such initiation fees.

I would say that as far as that particular case, the remedy—the action has gone completely. There shall be no charges to any of these people and they shall be permitted to work without any fees, and that has been the action of all of the 19 organizations, I am informed, who constitute the building construction trades, building trades department.

Senator BREWSTER. Have you had reports from the various projects that were in course over the country, as to whether that procedure has been followed?

Mr. HILLMAN. I have received no complaints since that time.

Senator BREWSTER. How long ago was that?

Mr. HILLMAN. This must be 4 or 5 weeks, and I have seen also the letter that went out to each secretary of each local union, telling them that that is the procedure.¹

Senator BREWSTER. Could you file a copy of that letter?

Mr. HILLMAN. Yes; I will do that.

Senator BREWSTER. I think that would be very helpful. I may say on that particular score that back last fall, anticipating this problem and hearing of it more or less, I did talk with the head of our Federation of Labor organization in Maine and he assured me that they desired to follow the same policy. In other words, that labor did not wish even to seem to take advantage of our emergency to propagate proselytes for itself.

Mr. HILLMAN. As you know, Senator, I have represented the labor division of the Defense Council and my only influence was to ask them to get a proper policy, and I was more than delighted to find that all the 19 organizations have accepted a policy that does away with all of this fee charging. I was also told that in most cases they turned their money back. I saw a number of the statements in the newspapers—I am not charging the newspaper people—irresponsible statements, exaggerated statements, but we found a suffi-

¹ The letter referred to appears in the appendix on p. 393.

cient number of these instances so that we have directed our attention in asking them for remedial action.

- I have the same resolution about the jurisdictional strikes, which is that no jurisdictional strike—

Senator BREWSTER. Will you put a copy of that in the record?

The CHAIRMAN. Let that go in the record.

Senator BREWSTER. That is the one dealing with jurisdictional—

Mr. HILLMAN (interposing). Yes.

Senator BREWSTER. To the same effect?

Mr. HILLMAN. It is short.

Senator BREWSTER. I think we had better have it.

Mr. HILLMAN (reading):

Whereas our Federal Government has embarked on an extensive program of national defense, and

Whereas world conditions of today are of such a serious nature that the rapid and uninterrupted completion of the national defense program is absolutely essential for the preservation of our democratic system of Government, therefore be it

Resolved, That the Building and Construction Trades Department of the American Federation of Labor, its officers and members solemnly pledge themselves that there will not be any stoppage of work on account of jurisdictional disputes between any of the building and construction trades on any building or construction project essential to the speedy and successful completion of the national defense program, and, be it

Further resolved, That copies of these resolutions as adopted be sent to the President of the United States, Vice President of the United States, the Speaker of the House, Secretary of War, Secretary of Navy, Secretary of Labor, both chairmen of the Office of Production Management and the Defense Mediation Board.

Senator BREWSTER. What was the date of that resolution?

Mr. HILLMAN. The same time. This must have been about 4 or 5 weeks ago; the same meeting that was held. A special meeting was called first for the presidents of the organizations, and then I understand of the building-trades department, and these resolutions were passed unanimously, I am told, and I have the letter enclosing to each secretary of the local unions of the building trades a copy of this.

Senator BREWSTER. I was particularly interested in the date because early in March, a jurisdictional strike was about to be invoked up in my territory. I had to take it up with your office. It was settled by accepting the desires of those who threatened to strike, rather than resolving the differences that existed. I felt personally that where 25 men were going to tie up a whole job, the situation was too serious for argument. We couldn't argue about it then; it did involve these very questions of policy of which you speak.

Mr. HILLMAN. These are the resolutions officially adopted by those organizations and communicated to their local unions.

Senator BREWSTER. They did tie up—

The CHAIRMAN (interposing). You will get the dates?

Mr. HILLMAN. Yes; both were passed on March 29, 1941.

Senator WALLGREN. Those resolutions that you read there were resolutions of building organizations only?

Mr. HILLMAN. That is right.

Senator WALLGREN. Not industrial organizations.

Mr. HILLMAN. Industrial organizations, of course, have no jurisdictional strikes inside of their own organizations—they still have the problem of strikes between A. F. of L. and C. I. O.

Senator WALLGREN. How about some of these plants building tanks and so on?

Mr. HILLMAN. I say we still have A. F. of L. and C. I. O. disputes, but there are very few. We have none now. I don't think we had more than two or three through our whole experience. I have a committee of representatives, two A. F. of L. and two C. I. O., who form the committee to which I refer any threat of a jurisdictional strike between the C. I. O. and A. F. of L., and it is their responsibility to straighten it out.

Senator WALLGREN. Let's go back to this question I asked you a little bit earlier. Here is a union, a C. I. O. union, hauling lumber to a camp site; A. F. of L. refusing to work on the job because the lumber had been hauled out by C. I. O. Does your resolution cover anything like that?

Mr. HILLMAN. No; it does not. By the way, Senator, a resolution from the building trades means all I have to do is bring to their attention the danger of any of these disputes.

Senator WALLGREN. These were building trades that pulled this strike, however.

Mr. HILLMAN. That is a building trades relationship with the C. I. O. organization. I have no hesitancy to say to you that that kind of a strike is all wrong. No question about it.

Senator WALLGREN. Your resolution doesn't cover it?

Mr. HILLMAN. The resolution does not cover that, but if I am correct, I believe the Mediation Board has handled one of these aggravated cases, and I think they have reached a proper settlement.

LABOR TRAINING PROGRAM

Senator BREWSTER. Mr. Hillman, how is the training program being coordinated? Is there one agency now that has complete control?

Mr. HILLMAN. We are the agency for coordination. We cannot have complete control; we are not going to have the Employment Service and the Office of Education all under one organization; it is obviously too far removed. I have attached to my staff, representatives of all these agencies; Dr. Floyd W. Reeves represents my division, coordinating all these agencies. For a while we thought C. C. C. would come under the same jurisdiction, but it does not quite fit in, in our industrial program; the kind of things they do is more in other fields. Then we have invoked, as I have reported to you, this tremendous program of training in industry, which is completely of our own making.

Senator BREWSTER. That is a voluntary action of industry and labor?

Mr. HILLMAN. Yes. Heading this division is one of the greatest experts in the country, Mr. Channing Dooley, whose services I have secured from Socony Vacuum; Mr. Dietz of Western Electric; a representative of the U. S. Steel Corporation. Almost every major company in the country has given me their best man. Then they have divided the country up into 22 sections, as I have reported.

Senator BREWSTER. Have you come into any situation where there has been difficulty with restrictions on apprentice training?

Mr. HILLMAN. Not in this conference; we have 12 representatives, 6 industrialists, top industrialists, and in the groups of labor, 3 A. F. of L., 3 C. I. O. There has not been a single disagreement. I

don't know of any case where labor said, "Now we must not train people because this interferes with our rules and regulations," and that is what I am referring to, Senator—the cooperation. If we cannot get real cooperation in training people, that is much more important than labor relations, and in that field, the record of cooperation of management and labor, in my judgment, cannot be excelled; it is 100 percent.

Senator BREWSTER. Were you one of the committee consulted in connection with the fixing of steel and coal prices?

Mr. HILLMAN. I have been; I am a member of the committee. You say "fixing"—we are just the policy-making committee; there has been no price-fixing.

Senator BREWSTER. You don't feel you have the power to fix prices?

Mr. HILLMAN. I would not pass on it. Mr. Leon Henderson has been appointed in that field to watch the price level, and I believe he is qualified to speak on that subject. Attached to him is an advisory commission of all Government departments, and I am one of the committee, and we are kept advised all the way through as to what they intend to do.

POSSIBLE EFFECT OF PRICE RISES

Senator BREWSTER. Well, you would agree I think with one of the questions of Senator Wallgren, that if prices rise it is going to affect our labor situation very seriously?

Mr. HILLMAN. We are going in an upward spiral, and it will affect everybody.

Senator BREWSTER. And labor must have a square deal in any situation of that kind?

Mr. HILLMAN. That is right.

Senator BREWSTER. And you would recognize that industry should also have a square deal?

Mr. HILLMAN. No question about it.

Senator BREWSTER. And was there any suggestion to the steel industry that they might find their prices fixed at the time the wage increase was agreed to?

Mr. HILLMAN. Might find?

Senator BREWSTER. Prices fixed.

Mr. HILLMAN. The best man, Senator, to answer that would be Mr. Henderson. Mr. Henderson brought a recommendation—I think it has been published in the papers—that before any rise should take place, there ought to be time given to investigate whether it is called for.

Senator BREWSTER. Did you read his order that he issued?

Mr. HILLMAN. It has been given to us.

Senator BREWSTER. It goes a little beyond your aspects of recommendation. I think it is pretty precise. Whether or not it is within the statutory authority, I don't know.

Mr. HILLMAN. We are attempting to keep prices at a proper level, and I am speaking just for myself. We cannot do too much in that field if we are going to avoid inflation that may become harmful.

Senator BREWSTER. I will put the question this way and perhaps you will express some opinion on it, so far as the record shows. After considerable discussion, the wage scale in steel was raised 10 cents, was that it?

Mr. HILLMAN. Through collective bargaining.

Senator BREWSTER. It was increased 10 cents, and the next morning the steel industry found themselves with their maximum prices of steel automatically tied down. Now suppose the situation had been reversed. How would you have felt?

Mr. HILLMAN. How would it be reversed? Would you spell it out?

Senator BREWSTER. Labor got its wages fixed and the next day had an increase of 10 percent in the price of bread. Would you feel all right about that?

Mr. HILLMAN. Those things do happen all the time.

Senator BREWSTER. Retaining the confidence of everybody concerned? I don't know anything about the inside of these negotiations.

Mr. HILLMAN. Labor has a fixed wage, let us say, in steel. I think the contract—I don't recall exactly—is a 2-year contract; it is a year contract in shipbuilding with a provision for reopening negotiations at the end of a year. Now suppose we have made a contract right now; these are the wages; then something happens, a rise in the cost of living. We immediately go and change wages. You would completely get into a spiral.

Senator BREWSTER. This is a little more extreme because the very agency of the Government which has been intervening to encourage a settlement in the steel situation, the next day by another agency automatically restricts the revenue.

Mr. HILLMAN. Senator, I probably haven't all the inside information of how far it went. As far as I know these were collective-bargaining procedures. We always exercise our influence of asking for no interruption of production, and we do it everywhere.

Senator BREWSTER. I am addressing myself to you now as the great advocate of cooperation.

Mr. HILLMAN. I see.

Senator BREWSTER. And a very successful one.

Mr. HILLMAN. That is right.

Senator BREWSTER. I give you credit for that; you have been very successful. Now I want your opinion as to whether that is a very good way for the Government to do business.

Mr. HILLMAN. My feeling, Senator, speaking for myself, and I approved of it, was this: All that is required is that before there is an increase in the price level of steel, it be shown to a governmental agency that conditions call for it. After all, there is the general increase in profits that must come because we are fully utilizing our equipment. It has nothing to do at all with any question of wages, nothing to do with profiteering, nothing with rising prices. Let us say you have a plant working 52 weeks a year, and, if you follow steel, we have managed to put it in what is usually called 100 percent-wise—top production. We say now that they have produced in 1 week, 102 or 104 percent. Now obviously that is going to bring larger and larger returns to the companies. Well, labor has a right, in my judgment, and I think you will agree with me, to say, "Here, there is an increase in profits. Now we ought to get a return from it." Well, if it is purely on the question of that increase in profits, it is my judgment that prices should not be raised to the consumer because that would be taking an unfair advantage of the general situation. I am not laying down any rules as to what is a proper return on investment. But obviously if there is a large increase in profit, some of it ought to go to labor, without cost to the consumer.

As I understand, it would be necessary to say what is the decrease in unit costs, before anyone could say how an increase in wages would affect what we call normal profits. And again I am not laying down a fast and hard rule for profits.

Senator BREWSTER. How would you handle the case of the marginal producer?

Mr. HILLMAN. I believe that merit's an investigation. I don't believe anyone is wise enough to say, without knowing the facts, what ought to be done. Now all that was decided was to say, before we do anything, "Let us get the facts," and I am satisfied that when the facts are available, the fair thing will be done. I hope it will be, because I don't believe we will make real progress in our program unless the fair thing is done by everybody, including the consumer. That is about all.

The CHAIRMAN. Mr. Hillman, in your little booklet here, Labor Speeds Defense, there is a paragraph on page 28 that goes into defense orders for small businesses.

Mr. HILLMAN. Yes.

The CHAIRMAN. I am very much interested in that and I am also very much interested in the policy that has been pursued by O. P. M. to some extent in saying in one division that they wanted the small businesses to get a part of this national-defense program, and then sending out circulars—if I am not mistaken—Mr. Henderson sent out a circular in which he advised the small machine owner to sell his machine to the big fellow. Now how are you going to make those two coordinate?

DECENTRALIZATION THROUGH UTILIZATION OF IDLE PLANTS

Mr. HILLMAN. I am rather proud of the Labor Division's part in the national-defense program. We recognized in the early phases of the program, that, purely from the labor angle, we should spread the load, avoiding the experience that we had during the last war where we had migration of labor because orders were all given in certain areas. We brought our recommendations for the avoidance of such a mistake to the National Defense Commission, in which we called attention to utilization of idle plants and idle labor, spreading the work out, if you please, into the agricultural areas instead of bringing people to Connecticut, for example, for training. Let's train them right in those places and, as the load increases, spread it.

Now this was in the early stages of the program. The contracts were given to the companies that were able to handle them properly, because that was the way to get the greatest speed and effectiveness in letting those contracts. You know the contracts are given out by the contracting agencies of Government—War, Navy, Maritime Commission. Since that time, the policy of spreading the work has been the accepted thing. It has been accepted in a general policy on labor which was approved by the President and sent to Congress in a special message, for the information of Congress, I think some time in November last year. Since that time, we have implemented our organization, taking into consideration not merely the small businessman, but in the mass-production industries, the idle plants and idle labor. We have today, in my judgment, a well thought-out set-up for spreading the load.

If Mr. Henderson has sent that letter, of which I have only seen a mention in the papers, he was in error in doing it; it wasn't within his power to regulate this matter, at least. We created at the beginning of the program an organization for locating additional plants, wherever possible, where there was idle labor. We are setting up and now have the organization to spread the work from the prime contractors, to give subcontracts as wide a distribution of plants in the country as possible.

The CHAIRMAN. Has any effort been made to assure the subcontractor of a profit, as the general contractor is assured of his? I believe all these matters will come up in their own administrative way and I believe we will do all we can to handle it, but there has been right from the start the profit of the general contractor assured.

Mr. HILLMAN. I understand that fully.

The CHAIRMAN. The subcontractor can have his feet held to the fire and be worse off than if he didn't have a contract?

Mr. HILLMAN. We need the work, and again we are asking everybody to cooperate, and when the prime contractor does not avail himself of existing facilities, he is not cooperating. We consider it our responsibility to make it possible for some places to be given subcontracts. In other words, find them and give them some supervision and get the idle labor and idle plant to make themselves available for contracts. The subcontractor will argue his case for profits, and again, under our system, I say that in all of these things we can look forward to cooperation.

Senator WALLGREN. Mr. Chairman, one question I want to ask. From your testimony today I take it that you would deem it unwise for Congress to pass the Vinson bill?

Mr. HILLMAN. Oh, yes; obviously; all of it; some of it is very unwise; most of it. I think that no legislation is required and some of the provisions I think would definitely be harmful; would make for disputes instead of helping to prevent them.

QUESTION OF GOVERNMENT OPERATION OF PLANTS IDLE THROUGH STRIKES

Senator CONNALLY. I understand you to say in answer to the Senator from Maine that you favored the provision in the draft law taking over plants?

Mr. HILLMAN. Where facilities are necessary.

Senator CONNALLY. Where facilities are not made available on fair terms to the Government?

Mr. HILLMAN. Of course, with proper compensation.

Senator CONNALLY. Certainly. Of course, pay them what it is worth; the courts can settle it if they can't agree. Now, of course, the objective there is to get that plant so it will go to producing, isn't it?

Mr. HILLMAN. That is right.

Senator CONNALLY. Keep on producing?

Mr. HILLMAN. That is right.

Senator CONNALLY. Now suppose on the other hand, we have a plant that is tied up with a strike. The men in the plant won't go ahead and won't work. Would you favor the Government taking over that plant, as it took over the one from the management?

Mr. HILLMAN. In emergencies.

Senator CONNALLY. This is an emergency right now, isn't it?

Mr. HILLMAN. Senator, may I make myself plain? When I say an emergency—if there is no other way of getting that plant operating, I would say that the Government could run it as it runs its arsenals, with Government supervision.

Senator CONNALLY. Wouldn't you favor that?

Mr. HILLMAN. Yes; if necessary, I would.

Senator CONNALLY. You favor, then—

Mr. HILLMAN (interposing). Where necessary.

Senator CONNALLY. When necessary. If the plant is not operating and it is tied up with a strike, isn't that necessary? When would you want to wait, until the war is over and then determine?

Mr. HILLMAN. It takes a little time and we can get that strike settled; I consider that much more satisfactory.

Senator CONNALLY. Wouldn't that policy on the Government's part have a very stimulating effect on settling the strike, if they knew the Government was going to come in and take charge of it and run it, like it does its arsenals and other public plants?

Mr. HILLMAN. Maybe that is why we have as good a record as we do; maybe they know that when the Government takes over a plant to operate it, it will obviously have to operate that plant with labor; so that the labor would operate under Government supervision, the same as the industry.

Senator CONNALLY. Wouldn't you favor doing that?

Mr. HILLMAN. You have it now, Senator, when you say that you are taking over the facilities; obviously you are taking over and have to have the labor.

Senator CONNALLY. That is only in case the owners of the plant don't cooperate, but now suppose the men in the plant won't cooperate and they go out on strike and tie it up and stop the production, wouldn't the same logic apply? That would suggest the Government wants this production; it is not getting it; it can't get it; the Government will step in and take charge of the plant and pay the men fair wages and with the right kind of living conditions and operate that plant.

Mr. HILLMAN. Quite right.

Senator CONNALLY. Wouldn't you favor that?

Mr. HILLMAN. That is right.

Senator CONNALLY. I am so glad. So then your other statement that you wouldn't favor any law at all is not correct, is it?

Mr. HILLMAN. You say no law; concerning labor relations no additional legislation is required today.

Senator CONNALLY. You don't retract what you said a moment ago?

Mr. HILLMAN. If it becomes necessary I would say "Yes."

Senator CONNALLY. Who is going to determine if it becomes necessary?

Mr. HILLMAN. The Government.

Senator CONNALLY. That is right, the O. P. M.

Mr. HILLMAN. The Army, Navy, and O. P. M.; that is where all the agencies are represented.

Senator CONNALLY. From your attitude and testimony, I think it would be a long time before you would ever find it necessary.

Mr. HILLMAN. I would say you have to pass your own judgment on it. I would say the experience of the last 10 months, where labor has cooperated under my coordination, shows it was satisfactory in all efforts.

Senator CONNALLY. Of course, you believe in peaceful picketing, don't you?

Mr. HILLMAN. Yes, of course; it is the law.

Senator CONNALLY. You don't believe in unpeaceful picketing?

Mr. HILLMAN. You mean violation of the law? Of course not.

Senator CONNALLY. Violation. You don't believe in pickets beating people up?

Mr. HILLMAN. No.

Senator CONNALLY. Would you favor a Federal law making it a Federal crime in any defense plant making defense orders for pickets or strikers or anybody else using violence on other people who wanted to work?

Mr. HILLMAN. I believe, Senator, that that police power should be left to the States. I don't think it calls for the Federal Government.

Senator CONNALLY. This is defense; I am not making a general Federal law, simply on plants in which the Government has money invested, in many of them its own money, the expansion of plants, has millions of dollars worth of orders, and you wouldn't think it was any part of the Federal Government's function to protect that plant and see that it produced?

Mr. HILLMAN. I think it ought to look to the police powers of the State to see that orderly procedure is adhered to.

Senator CONNALLY. Then you are against any Federal law on that?

Mr. HILLMAN. Oh, yes. I think police powers should be left to the State.

Senator CONNALLY. You are also opposed to the so-called Vinson Act, that would allow the cooling-off time?

Mr. HILLMAN. I have said that I don't believe it is necessary.

Senator CONNALLY. Don't you think cooling time would help toward this cooperation you have been talking about so much? Wouldn't they be more apt to cooperate if they thought it over for 30 days or 60 days?

Mr. HILLMAN. They are doing it right now for 90 days and more; the very few exceptions are the ones you hear about.

Senator CONNALLY. How about the coal strike?

Mr. HILLMAN. Here is the coal strike that went into effect April 1. You had a law requiring 30 days' notice; you would have the notice March 1.

Senator CONNALLY. Thirty days more than nothing, wouldn't it be?

Mr. HILLMAN. No, no; it would just be 30 days prior—they would serve notice that they will cease work April 1. Production would go on in the meantime.

Senator CONNALLY. And they have 30 days to negotiate and cooperate; you could have 30 days there to cooperate, get ready.

Mr. HILLMAN. For the technical cooperation, the unions would give the time. Now it is a matter of record that the unions in this case made an offer to the employers to remain at work and make whatever agreements they would ultimately conclude retroactive. I just want to place this on record.

Senator CONNALLY. Now I have a matter here, the accuracy of which I can't vouch for, of course, but I have a report here that the War Department advises some parties, the press or somebody, that 17 smaller defense plants have coal supplies for only 3 days' work at the most, and they will have to shut down completely by Thursday unless they get more coal. Do you know anything about that?

Mr. HILLMAN. I have notified the Secretary of Labor last week, not of 17 cases but of a number of cases ranging from 3 days to 2 weeks. That is an emergency and I have brought it to her¹ attention. That, of course, is a matter of record with her, too, because usually people who give us the notice inform all the governmental agencies.

Senator CONNALLY. Then you would say that a number of plants are short of coal and unless they get coal——

Mr. HILLMAN (interposing). Our information is that we are coming to a very critical situation.

Senator CONNALLY. Now a part of your duties, of course, as a cochairman of the O. P. M. is to look after labor matters that affect defense items?

Mr. HILLMAN. That is right.

Senator CONNALLY. Don't you think that situation there and the coal situation that all industry faces is one that affects production, defense production?

Mr. HILLMAN. All that we do in O. P. M.——

Senator CONNALLY (interposing). I am not asking all you do. Do you think it is or not?

Mr. HILLMAN. We contact the proper governmental agencies handling it.

Senator CONNALLY. I thought you were the proper governmental agency. You said a while ago labor under your direction had gone along for 8 or 9 months, and all this; I thought you were the proper man. Now the question I asked you, which you very skillfully evaded, was whether or not you considered the coal situation? The coal situation and its relation to defense production is a matter that affects the whole program.

Mr. HILLMAN. No question about it. But——

Senator CONNALLY. Let's not have any "buts."

Mr. HILLMAN. I take it that you want the whole picture. I have stated here that we are not duplicating governmental agencies; we coordinate them. In labor relations, the first place is the Conciliation Service of the Labor Department.

Senator CONNALLY. I know that.

Mr. HILLMAN. In the second place, the Secretary of Labor has assigned the head of the Conciliation Service, Dr. Steelman, to handle the situation.

Senator CONNALLY. I really know all that.

Mr. HILLMAN. That is all I feel I can do about it.

Senator CONNALLY. I am not talking about what Dr. Steelman can do; I am talking about what you can do. Now you said awhile ago that you hadn't done anything about trying to settle the coal strike. Now if you are in touch with the leaders of labor and all that, and it is your union, and you haven't done a thing to try to bring about a settlement of that strike?

¹ Hon. Frances Perkins.

Mr. HILLMAN. Because the Labor Department is handling it through Dr. Steelman.

Senator CONNALLY. He doesn't handle all the labor matters. Which ones do you really handle? Now let's get down to where you come in; the Labor Department handles all labor matters. What do you have?

Mr. HILLMAN. The Conciliation Service handles every situation where there is any possibility of trouble. When we believe we can be of help to them we step in through our labor advisers and industrial advisers.

Senator CONNALLY. Why haven't you stepped in on the coal strike?

Mr. HILLMAN. Because this situation is being handled by the Director of Conciliation.

Senator CONNALLY. I understood you to say that you could step in when you felt you could be helpful. Why don't you step in, because the stepping is going to have to be pretty fast if the plant closes down by Thursday?

Mr. HILLMAN. I don't believe I would have a greater contribution to make in helping settle it than those in charge of it today.

Senator CONNALLY. You aren't going to do anything about it, then?

Mr. HILLMAN. Unless someone asks me to do it.

Senator CONNALLY. I am asking you now to do it. This committee is going to ask you to do it, if you have any influence.

Mr. HILLMAN. I think it would be inadvisable for the committee to ask me to step into a situation where a Department of the Government is involved in handling a situation with one of their best men staying there day and night to try to find the solution for it. Sometimes there is a crossing of lines that makes for trouble.

Senator CONNALLY. Whom do you want to ask you?

Mr. HILLMAN. If the Department of Labor thinks I can be helpful, they will ask me.

Senator CONNALLY. Evidently they don't think you can be helpful; they haven't asked you?

Mr. HILLMAN. That situation is being handled by the best method they know how, and it is a situation that I hope will be settled soon, but there is no one who can just pull out a formula in differences that are not merely between labor and management but between management and management. The differences right now are more between the operators and operators than between labor and management. I am not passing any judgment on what is right or what is wrong.

Senator CONNALLY. I thought you said a while ago you hadn't gone into any of the details?

Mr. HILLMAN. I said I am keeping in touch with that situation; I am informed about it, Senator.

Senator BREWSTER. I would like to ask a question. What would be the precise status of the thing if it was certified to the Mediation Board? What difference would that make?

Mr. HILLMAN. Simply that the Mediation Board would step in.

Senator BREWSTER. In place of Dr. Steelman?

Mr. HILLMAN. That is right, and of all those who are associated with Dr. Steelman in helping him solve the problem.

Senator BREWSTER. And would they have any more powers?

Mr. HILLMAN. No.

The CHAIRMAN. If the differences are between management, it is not the part of labor to step in and settle it anyway?

Mr. HILLMAN. We have tried that, Senator, in many instances and we have straightened out management's differences. It is all part of the picture, but I am not trying to evade, Senator, and after the matter is settled and my testimony—

Senator CONNALLY (interposing). After the matter is settled you will claim a lot of credit.

Mr. HILLMAN. I will be more free to discuss it.

Senator CONNALLY. After it is all over, we are not interested in discussing it; we are interested in discussing it before it is settled. Anybody can talk about it after it is over.

Mr. HILLMAN. I can assure you, Senator, that everything that it is humanly possible to do to bring about settlement is being done.

Senator CONNALLY. By somebody else but not by you. I don't want to be unfair to you but that is what you testified, isn't it?

Mr. HILLMAN. I would say that all I can do to be of help I am doing, but the Labor Department is in charge of handling that situation at this moment.

Senator BREWSTER. Mr. Hillman, is there any other agency of the Government, other than you, to whom, for instance, the railroads and industries of Maine, concerned with defense production, should turn for solution of their problem? All they want is to keep functioning, which is, as we understand it, your function, to keep them going, with your association with Mr. Knudsen. Now we are laying it on your doorstep; we can't enter into all the complicated questions of jurisdiction and other matters; we have understood you were the over-all agency to get results for us.

Mr. HILLMAN. Senator, you wouldn't want me, I am sure, to abolish all these agencies.

Senator BREWSTER. Not at all.

Mr. HILLMAN. Then we have to decide, in our place, what agency can bring the major results. And it has been and it is my judgment—Dr. Steelman has been assigned to give all his time to that particular situation—that we have given the best man we have to watch that situation.

Senator BREWSTER. Well, the taking all these reports such as Senator Connally speaks of and others, I presume they are accumulating.

Mr. HILLMAN. There is no question.

Senator BREWSTER. Those come to you?

Mr. HILLMAN. They come to me.

Senator BREWSTER. Do you communicate them to the Labor Department?

Mr. HILLMAN. I communicate them to everybody who has any interest and who can be of help in it.

Senator BREWSTER. So they will realize that it is getting very late?

Mr. HILLMAN. That is right, sir. I mean there is no question about the possible effect to national defense. That is our primary responsibility and we communicate with the agencies, whether it is in training or labor relations. We step in if we believe that we could do it better, and I would say that the coal situation is being given the attention by the ablest men the Government has in conciliation.

Senator BREWSTER. You understand the only thing that will do us any good is coal?

Mr. HILLMAN. I know that.

Senator BREWSTER. Not conciliation.

Mr. HILLMAN. It would be a pretty cold situation.

Senator HATCH. One question, Mr. Chairman. Mr. Hillman, if I understood you correctly, you said labor itself was willing to continue with the production of coal and continue negotiation over their difficulties?

Mr. HILLMAN. That is right.

Senator HATCH. Letting whatever decision that might be reached be retroactive?

Mr. HILLMAN. Yes.

Senator HATCH. Is that still labor's position today, or do you know?

Mr. HILLMAN. I can't speak for them, but that was the proposition made by the representatives of labor publicly; it was a public statement 2 or 3 weeks before April 1. There was no reason for a stoppage. I am not trying to get away from the point of view of labor.

Senator HATCH. I am trying to get the facts.

Mr. HILLMAN. These are the facts. What we have done, I will be able to state after the strike is settled, without embarrassing many people who are now a party to the controversy. But, Senator, I can assure you that something was done in that situation as well.

The CHAIRMAN. The committee will meet tomorrow at 10:30 and General Marshall will be the witness. The committee will hold an executive session after we adjourn, here in this room, and I hope that the room will be cleared as expeditiously as possible. The committee is adjourned.

(Whereupon at 1:25 a recess was taken until 10:30 a. m. Tuesday, April 22.)

INVESTIGATION OF NATIONAL DEFENSE PROGRAM

TUESDAY, APRIL 22, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE INVESTIGATING,
THE NATIONAL DEFENSE PROGRAM,
Washington, D. C.

The committee met at 10:35 a. m. Tuesday, April 22, 1941, in room 318, Senate Office Building, Senator Harry S. Truman presiding.

Present: Senators Harry S. Truman (chairman); Mon C. Wallgren, Tom Connally, Joseph H. Ball, and Ralph O. Brewster.

Present also: Hugh A. Fulton, chief counsel, and Charles P. Clark, associate chief counsel.

The CHAIRMAN. The committee will come to order. General Marshall, will you proceed?

TESTIMONY OF GEN. GEORGE C. MARSHALL, CHIEF OF STAFF, UNITED STATES ARMY

Mr. FULTON. General Marshall, will you tell the committee something of the condition of the Army in the summer of 1940?

General MARSHALL. Do you desire me to start at any particular date?

Mr. FULTON. No. As a matter of fact, you could start earlier than that, if you found it convenient.

Senator BREWSTER. At the time he took over. When was it he took over? Why not establish when he took over?

The CHAIRMAN. General, tell us when you took over as Chief of Staff

General MARSHALL. I became Acting Chief of Staff on July 1, 1939.

The CHAIRMAN. You might start from that point, then, in this statement.

General MARSHALL. Very good, sir.

At that time the money became available for the first augmentation of the Army, and, in personnel purely, the Air Corps. I say "at that time"; I mean on that date, specifically, on which I became Acting Chief of Staff. I had just returned from a 7 weeks' absence in Brazil

STRENGTH OF UNITED STATES ARMY IN 1939 AND SUBSEQUENT INCREASE IN PERSONNEL THROUGH SELECTIVE SERVICE SYSTEM

General MARSHALL. The strength of the Army, as I recall, was about 169,000. When I say "Army," I mean those on active duty. We were to start to build up on the basis of the appropriation then effective to reach 210,000 by the following summer. The augmentation involved an increase to approximately 5,500 planes and an in-

crease in personnel which would have carried us to the 210,000 I referred to a moment ago. The great majority of the individuals authorized in the increase were for the Air Corps, or the supply and administrative services necessary for the proper functioning of the Air Corps.

I became formally Chief of Staff, on September 1, 2 months later, on the date, incidentally, of the movement of the Germany Army into Poland, and the beginning of this present war.

Shortly thereafter, as I recall on September 8, the President made a public announcement in the form of a proclamation, I believe, but in any event it created a limited emergency and it authorized an expansion of the Army from the 210,000 to 227,000, the additional 17,000 men being ground troops. They also authorized us to create certain deficiencies, which legally could be done, and to specifically enter into the purchase of \$12,000,000 worth of motor transportation.

In July of 1939 we had a reasonably adequate garrison in Hawaii, a very deficient garrison of about 13,000 men in Panama—there are almost 30,000 today some 400 men, I believe, in Alaska and a total of 10,000 Philippine Scouts and white troops in the Philippine Islands.

Within the United States we had no field army of any kind. We had the pieces of about three and a half divisions, approximately 50 percent complete as to personnel, with very little transportation. Roughly speaking, each division constituted a force which when concentrated 3 or 4 months later, would permit one regiment to train if all the other troops of the division stayed in camp and loaned their transportation to that one regiment.

We had virtually no corps troops, almost no army troops, or what they call G. H. Q. special troops that are not assigned smaller units. In other words, we had nothing comparable to the United States Fleet, and these troops in continental United States were scattered throughout the country in approximately 150 small garrisons.

The authorization of the President in September 1939 permitted us to concentrate most of the ground troops in continental United States for immediate training. The increase of 17,000 men permitted us to build up to a peace strength, which is about half of the full war strength, five of the new-type triangular divisions, according to the organization that had then been experimentally developed for the Army. It permitted us to organize mostly from the ground up enough corps troops—that is, heavy artillery, engineers, antitank troops, medical regiments, and signal battalions—for about 60 percent of those required for a single Army corps.

It permitted us to assemble the three hundred-odd tanks that we possessed in some form or other into one place. Also, we added to the mechanized brigade, the only armored force we had, an infantry regiment of two battalions and some small engineer units. That constituted the beginning of a field force. Its assembly was started in the latter part of October and in November.

Except for arms, we had no particular equipment which would enable that force to function. We had to do the best we could with the limited money available in the way of deficiencies that we were legally permitted to create, and it eventually resulted in a force of 70,000 men being assembled in May for the first peacetime truly large maneuvers ever held in the United States.

It might be of interest to comment here on the fact——

Senator BREWSTER. That was May 1940?

General MARSHALL. May 1940, sir.

It might be of interest here to comment on the fact that it required from October until practically the 1st of May to obtain the motor transportation necessary for those troops, and we could not, even in May, obtain what they called the prime movers to haul the heavy guns and the antiaircraft guns around. The motor industry did their level best for us, and made a tremendous effort to speed production, but it is a long time before production, that is, quantity production, develops, and the maneuvers were delayed from the 1st of April, when we would have preferred to hold them until May. The limiting factor was that we had to get these troops back to their home stations to handle the summer training of all of the National Guard and of the R. O. T. C., the C. M. T. C., and of the Reserve Corps.

Those maneuvers, the organization of those divisions, the creation of the beginnings of the first Field Army Corps, tactical Army corps, marked the real expansion of the Army.

I think it would be interesting—I think it is of interest—to realize that in all of our planning since 1919 we had to work without the benefit of troops except in our foreign possessions. For that reason we had built up a very elaborate school system, because we had to make good in other ways what can be so much better learned by actually handling troop organizations in the field, as the Navy is able to do with their fleet. They have a much less elaborate school system in the Navy, for the reason that they have something actually to work with, a condition which enables a student to learn his lesson in the best possible manner.

I have gone into some detail as to the development during the fall of 1939 and the winter of 1939–40 because it was the experience we gained from that in the developments of command, of troop requirements, and everything of that nature, which constituted the real basis of further development of the Army.

Mr. FULTON. General Marshall, I think you said there were 70,000 troops in that maneuver.

General MARSHALL. Yes, sir.

Mr. FULTON. Could you tell us why there couldn't have been a maneuver earlier of that number, because the Army has exceeded 70,000 for the entire period, as I understand?

General MARSHALL. Yes, sir.

Seventy thousand, under the strength at that time was, a very large number to concentrate in this country, because you have to eliminate all the foreign garrisons, which totaled about 70,000, approximately; you had to eliminate the coast defense troops, you had to eliminate the men in the depots, in the headquarters, and in the Air Corps, which was growing very rapidly. I think the Air Corps had at that time probably in the neighborhood of twenty-five or thirty thousand troops. It had had about 19,000 at the start of the previous summer of 1939, so when you had 70,000 you had a very large proportion of a ground field army available in the United States. Certain other troops had been concentrated, notably in Arkansas. We had about six or seven thousand out there. We wanted—I personally wanted—to move those troops into the maneuvers in Louisiana, and I was opposed by the whole staff, because if we did it, we would have to emasculate

the equipment of those being assembled in Louisiana to a point where it would not have been a test of the organization we wanted to manage. As it was, we had troops on the west coast that we didn't bring all the way East. We brought some small organizations East, but to have brought everyone would have entailed a tremendous expense, and the appropriations for the maneuvers on our estimates were cut three million at the last moment, which further restricted us in what we were doing.

The greatest cost was the assembly of the people scattered all over the country. We spent comparatively little on the installations for their comfort and incidentally had the coldest winter in 22 years while we were doing this.

Senator BREWSTER. When you speak of that cut, by whom was that cut?

General MARSHALL. By the Congress.

Senator BREWSTER. Not by the Budget?

General MARSHALL. No, sir.

Senator BREWSTER. The Budget recommended the larger sum?

General MARSHALL. Yes, sir.

ACQUISITION OF EQUIPMENT AND CAMP CONSTRUCTION

General MARSHALL. So we had to make use of the equipment then available, meaning motor equipment and matters of that kind. In Engineer equipment we were tragically short even for the few Engineer units in the Regular Army. They require special machinery for their many purposes and these types require a long time to secure. The troops I have mentioned were not moved in because that would do more harm than good to the experiment we were conducting.

From that time on things began to move with a great deal of rapidity. I might say that in the early spring or the late winter of '40, to give a little picture of the public backing that we were receiving—in the early spring, along in March, our estimates were cut by the House from 496 to 57 planes; for Alaska, which now has over 8,000 men, and about ten or twelve thousand en route with the garrison going up to twenty-odd thousand in the next few months—we then had less than 400 men, and those 400 not where we wanted them—our estimate was cut from twelve million to zero. That was in March of 1940.

I might add that I was severely criticized for daring to mention so small a number of planes as 10,000 about 2 months later.

We found ourselves in May short some \$24,000,000 worth of critical items of equipment needed for the first issue; that is, actually in the hands of the troops, for what we called the initial protective force, not equipment to meet the wastages of a campaign, but just the first issue. We were short, almost completely lacking, in clothing, for example, for a prospective increase of the National Guard from a strength of around 60 men to the company, with 1 uniform to the man to the number required to equip them to full strength, which would be from 60 to 200, for each organization.

We had all those matters to make good if the authorization was granted us, and it seemed to me at the time that the principal trouble, the fundamental trouble, was that the people were not appreciative of the possibilities of the situation. When the German Army made

its move into Denmark and Norway, the issue came up to obtain this 24 million for this small initial protective force, and on the heels of that came a much greater catastrophe, with a public consciousness that there was much to be done. Just how much I don't think anyone realized.

As you recall, on May 16 the President, in a special message, recommended a sum around \$1,000,000,000, of which \$732,000,000 was for Army equipment. And then 3 weeks later, about the time Dunkerque was developing, he recommended another sum of around a billion, which included, I think, 709 million for Army equipment and material.

There is a very interesting sidelight there, I think, in the appreciation and attitude generally that is represented by the fact that between the May 16 message and the May 31 message there was a great change of attitude on the part of industrialists and others as to what might be done, what orders they might be able to handle that we could place with any assurance of their being fulfilled before Congress met again if it adjourned shortly after that and reconvened the 1st of the following January.

We had included in the eight hundred million about all the matériel for which at the moment it appeared that you could actually place orders. But as a result of the tremendous advances of the succeeding few weeks there was a great change of feeling on everybody's part which was reflected in industry, and in the world of industry. They felt that they could make certain deliveries of airplane engines that previously were not thought possible, and that they could undertake orders for artillery and similar items of heavy ordnance, notably anti-aircraft, for which a few weeks earlier they didn't feel that under the conditions they could probably accept orders, with any certainty of carrying them out.

Mr. FULTON. Did they explain why they had that difference in estimates over a period of several weeks?

General MARSHALL. Well, I think it was a general feeling that we had passed from a period of dividend considerations to one of purely patriotic considerations.

Mr. FULTON. By the makers of armaments, you mean?

General MARSHALL. Yes, sir. I do think they did a very fine thing. Those men, of course, have to meet their stockholders. They have to meet a very searching proposition in the business way that you gentlemen know far more about than I do, but that is a purely practical proposition.

Then it became evident that they must accept hazards, definite financial business hazards. That is the way it appealed to me. That is the way the reactions appealed to me. They were willing to undertake things that didn't look as a reasonable proposition to lay before a board of directors a few weeks earlier, when you have to run a business with some view to the success of that business, which is measured in terms of profits in the end.

Senator BREWSTER. Didn't Mr. Knudsen come here at that time?

General MARSHALL. No, sir; we haven't got to that point yet. Of course, that is a matter of dates. My recollection is that he came about the first of June.

Senator BREWSTER. I thought it was about the middle of May. That is in the testimony, though.

General MARSHALL. I may be wrong there. That is a matter of fact, of course.

In my relation to this phase of the matter I was in very close association with Mr. Morgenthau, who had been dealing with a number of businessmen, with General Motors and the other leaders in business, and I am speaking from my almost daily contacts with him in relation to these various estimates. He and I were working together at that particular time, before there developed the Advisory Committee for National Defense, which is now more or less the O. P. M.

Included in one of those two measures, I think the first one resulting from the President's message of May 16 was an addition by the Senate of an authorization for 28,000 men for the Regular Establishment, with what was of vast importance to us later, not only the money for the shelter but the money for the equipment and for the clothing. It was the contracts let from that money at the end of June which gave us some clothing to meet the induction of the National Guard in the latter part of September, otherwise we would have been hopelessly behind in that particular situation. That appropriation was for a year's maintenance, so we could use the maintenance allowance right at the start, the minute the appropriation became available. That was of priceless value to us though it seemed very small at the time.

I want to go clear back to one other item that I missed that has been of great importance to us. In the original augmentation of the Army for the air alone as to personnel there was included 110 million for matériel, which became available, as I recall, in May 1939, following the President's message of January 12, 1939. The matériel provided by that 110 millions, largely ordnance, has been worth two or three times its value to us in getting under way in this program and being able to equip people with reasonable facility.

To return, though, to the end of May and in June, the President, in one of these messages referred to the desirability of authority for him to call out the National Guard. We planned to carry out the induction of the National Guard by increments, and we wanted to bring in four divisions where we had certain facilities in existence and where the induction of these men at that time would not do undue harm in the business world, or in the farming communities. So we selected one division in the Northeast, Fort Dix. We had certain facilities there. We had land there. We had our summer training camp set-ups there which we could use, and there was a very small number of troops, only about 9,000 on the rolls in that heavily populated district.

We selected another division to go into Fort Sill, because we had certain facilities there. That was the Forty-fifth Division, from Oklahoma, Colorado, and those districts.

We selected another division, the Thirtieth, to utilize the facilities that existed at Camp Jackson, near Columbia, S. C., and the Fourth Division was in the Northwest. We wanted it near Alaska, and we had a spacious reservation at Fort Lewis, and summer facilities there that we could utilize for that purpose.

Along with that I think were about 18 regiments, the greater part anti-aircraft, a certain number of coast defense regiments, which we thought should be in the harbors of the Northeast and the Northwest, and along the California coast. We wanted them by July 1, and we

made our arrangements for July 1. I was under great pressure that summer from the members of the National Guard, who had more or less prepared themselves for this, but the authority did not come to do it.

Those same units were the ones we brought in September 16, but there was a vast difference in the induction, because that was on the edge of the winter, whereas the other would have been July 1, in the summer, quite another matter from the viewpoint of camps and quite an invaluable period to us in building the construction for them against the winter season.

No proposition had been made of any kind by the War Department toward selective service. Speaking very frankly, we felt that if that was proposed by the military authorities, it was doomed from that instant, because it would be charged as a measure to militarize the country. We must be the last to appear in that, and besides that the leadership in the matter naturally had to be with the Commander in Chief, the President.

We were also under the difficulty—I am going to be very frank here, because it is quite a part of the plot from the War Department's point of view—of having to move in anything we did with great circumspection. You may recall that in September, 1939, the War Department was attacked on the floor of the Senate for even endeavoring to mobilize our young men for war because we were holding a conference on the Selective Service Committee. We had been holding those conferences, I think, since 1926, first once a year and then, during the preceding 4 or 5 years, four times a year. But this particular conference was selected for an attack on us because it happened to be going on in Chicago at that time. The adjutant generals from the various States involved and certain public-spirited men of the Reserve Corps who came in for the purpose worked with us, and officials from the War Department, notably The Adjutant General's Department, to go into the whole procedure of how we could suddenly execute a registration should a selective-service measure be passed. We had also gone on the assumption that when the emergency actually arrived, meaning virtually a state of war, the Congress would give us some form of a selective service.

Then the issue was, to what extent we could cut down the time for putting it into practice? That was what we had been going through since 1926, and that was the basis of the attack on us in October 1939.

So in all our moves we had to be exceedingly circumspect, you might say almost naive, in order not to produce a reaction which would be calamitous in getting the things it was necessary to get. That, I think, comes from the public reaction, which is very normal, and you have to treat it as such, although it makes it very difficult to proceed along ordinary businesslike lines.

We now are in the summer of 1940. We had these appropriations, two of which were effective in June, one an augmented 1941 budget and one the first supplemental bill, the total of which was about two billion eight hundred million. The great problem, then, was how to spend that money in the most efficient and economical fashion. We were still without authority to call in the National Guard, and the selective service proposition was then being put before the public by an element of the Training Camps Association from New York. You are all familiar with the debate.

As I recall, authority was granted on August 27th for the induction of the National Guard.

Senator BREWSTER. When was that?

General MARSHALL. September 9 the money was provided for housing the guard.

Senator BREWSTER. When was that bill introduced? Do you recall that?

General MARSHALL. Somebody will have to supply that.

Senator BREWSTER. It was sometime in June, wasn't it?

General MARSHALL. In July I think. The President referred to it in one of his two messages in May. I appeared before the Military Committee of the House, in July, and it was the subject of debate back and forth—

Senator BREWSTER. You say it became effective in August, and the money was obtained on September 8 by being added by the Senate to a deficiency appropriation bill that had already been cleared through the House.

But during those preceding 3 months you knew that the matter was being seriously considered by the Congress.

General MARSHALL. Yes, sir. We knew that was being seriously considered, but not acted upon. In August the situation had become so grave as the winter was getting close that the President approved my proposal that 29½ million from the emergency fund of the President be made available to the War Department to do something toward preparing camps. At that time it was apparent that if a division was going to be put in the field in the cold climate of the Northeast, meaning Camp Dix, that work would have to be started immediately, so the major portion of that 29½ million was applied to the contracts for Camp Dix cantonment for the Forty-fourth Division.

Other portions of it were used for the utilities of Camp Jackson, for the Thirtieth Division; to Fort Sill for the Forty-fifth Division, and Fort Lewis, for the Forty-first Division. I don't recall now to what extent any of it was made available for the coast-defense camps for regiments here and there. I think very little.

The actual money for the construction became available on September 9th. Meanwhile the selective-service legislation was under debate, and after its passage the money for the construction involved in that was made available by joint resolution which was prepared by the Deficiency Committee of the House during a recess of 30 minutes while we were having a hearing on another appropriation, and that passed within 18 hours by both House and the Senate. That made available the money requested for emergency housing for the National Guard and the Selective Service trainees.

What detail do you want me to go into in the further development here, what phases of it?

Mr. FULTON. You might take up the step-by-step process of arming an individual and making him into a soldier, the equipment, living accommodations—

General MARSHALL. Yes, sir.

Senator BREWSTER. Wouldn't it be appropriate to show, first, what plans were prepared between May and September, looking to this eventuality, if any?

Mr. FULTON. I think General Twaddle will testify about that.¹

¹ See *supra* p. 135 et seq.

Senator BREWSTER. Wouldn't the General have the general outline, as he was responsible for what was done during that period of a general nature, in preliminary planing?

General MARSHALL. Yes, sir.

I had them go into a survey of their plans as they then existed and their adaptation against the future development of the Army. The important part here is this: What occurred then, I think, on the tenth or twelfth of May in Europe, and the collapse of the French Government, was not only catastrophic in its effect over there; it not only completely changed our situation in the world as to security behind the Atlantic Ocean and the Pacific, but it introduced a departure in warfare, to what extent we could not tell at the time except in the superficial way that you learn from recitations of the press. So it became our business, then, as quickly as we could get hold of it, to find out what actually had occurred, just how this German Army, which accomplished this military feat, operated; how it was organized, and how it was led into combat.

It was quite a difficult matter to get at the real facts, to see in what way any fundamental conceptions had been altered. And in the main they had not been. But quite evidently their application had been decidedly changed, altered. And what was called the maneuver of rupture, which was inaugurated by the Germans on the Russian front in the fall of 1917 and introduced with terrific impact on the western front in March 21 to April 3, 1918, had been put on wheels, as it were, to produce a determining result rather than the stalemate into which that attempt fell after April 3, 1918.

The coordination of air with ground, the operation of ground troops with mechanized and armored vehicles, was a new application of a fundamental principle. Up to that time our air people had felt that the actual participation of air forces on the battlefield itself, with ground troops, was somewhat impractical, that it could operate with much greater effect in the rear of the battle zones, in the enemy's air fields, in which it still must operate with vigor, in the cutting of communications, both the signal communications and road communications, supply and rail heads, and everything of that sort. The Germans introduced air as artillery on the battlefield. To be exact, they coordinated a heavy bombardment preparation with a very rapid movement of ground troops.

It was necessary for us to take every advantage of those developments to get at the bottom of what had really occurred. I might say now that the full information, so far as can be obtained in our present relationships, was not entirely available until about 2 months ago.

Senator CONNALLY. General, I don't want to interrupt you, but hadn't the Department had any reports or information two or three years back from their military attachés in Europe as to what the German Army was doing and planning, and so on?

General MARSHALL. We knew rather definitely what they were doing in the development of a huge air power. We knew definitely that they were developing quite an armored force, but the weight of the tank and the application of the air with the ground, was part of the secrecy of the preparation. That appeared to quite an extent in Poland, but the Polish campaign was really a dress rehearsal. That was a training affair, in a large measure, for the German Army.

and they approached the next operation with a tremendous development in effectiveness on what they had exhibited in the campaign in Poland.

Senator CONNALLY. Did you have any military observers either with the German Army or the Polish Army in the Polish campaign?

General MARSHALL. Not actually with the army. They were not permitted. We had attachés in Berlin, and they were taken into Poland some time afterward, at the tail end of the campaign.

I might say that one of our attachés in Germany, the year before Munich, as I recall, reported that the development of the German air power had reached such a point that it would change the diplomatic face of Europe. That was a year before Munich.

But the actual team-work, the technique, procedure, method, the hazards they were willing to accept—is one of the great parts of this affair. In that method of campaign these features were not exploited until they came into this rupture through Sedan and the move to Abbeville.

We obtained, as quickly as we could, sufficient detailed information to give us some grounds on which to profit, and the first step was to assemble all the tanks from the cavalry and infantry, pool them and create the beginning of an armored force. I don't know but what it might be a good thing to pause right there to paint the picture of what happens when you do these things

On July 14th we had no armored force. On July 15th we took the available troops, about 4,000, from the infantry and from the cavalry, that were concerned with tanks, or combat vehicles as they call them in their various terminologies, and about 400 officers. We divided them into 2 groups of 2,000 men and 200 officers each, designated one the First Armored Division at Fort Knox, Ky., the other the Second Armored Division at Fort Benning, Ga.

Since July 15, to take one division, the First Armored Division of 2,000 men and 200 officers, has increased to a strength of 18,000 men and in the neighborhood of 2,000 officers, and has then been reduced to 11,000 men and 1,200 officers, in the short space of 7 or 8 months. The reduction came from the necessity of furnishing the nucleus for another armored division.

The same thing has occurred with the Second Armored Division. There has been created a school which has 3,000 students at the present time and will have turned out 12,000 by the summer, trained in the motor mechanics, radio, and gunnery and the other things specifically needed on that score. Cadres for the new divisions have gone out, consisting of 3,500 men for each division with their trained officers. They have gone to their stations and we will have in being by June a force of about 12,000 to 13,000 in each of those armored divisions, making a total of four. But that is the expansion with the consequent attrition we have had to go through in order to produce those units. That is all the school installations that had to be built up, the machinery which had to be assembled, the instructional force which had to be gathered in order to carry that out. Those who have seen the First and Second Armored Divisions have been quite impressed with their military efficiency, yet they are the creation of a few months during which they have undergone what might well have been a catastrophic emasculation in order to produce still further units.

At the present time one of those armored divisions—I happen to remember the figures—has 85 percent Reserve Officers, and only 15 percent officers of the permanent establishment. That is about the proportion throughout the armored force; the proportion with the other units that we have created, so-called Regular Establishment, because they have a certain percentage of permanent personnel of the regular commissioned force. They are about 75 percent Reserve officers, and they have been emasculated about 4 times in the preceding 8 months.

The last emasculation was made in order to create the replacement training centers, of which there are 19, and they have or will have about 12,000 men each. All but one of these are now going full blast. I might say your committee can see one here right at Belvoir, and get a good idea of what that means. There we are turning to the normal from the abnormal. Heretofore we have had to put our men into units to be trained as troops. When the National Guard came into service, some of its men were partially trained, others had to be withdrawn on account of dependencies. We had to add to that the volunteer that had enlisted before the Selective Service Act became effective, and then we had to add to that the selective service men, so they went through those three graduations of training within the unit, all of which is an abnormal procedure.

Hereafter the men that go to them will come from these great training centers and will have had 3 months' intensive training, where they normally would have had about 6 or 8 months under the old peace-time regime, and as much as they would get in 4 or 5 months were they with a company unit actually receiving troop development.

Those are the changes in the Regular forces, which are on the increase at the present time, in furnishing all these cogs and training nuclei for these various developments. All of that has happened more or less at the same time. We have had to run schools for these Reserve officers, who are largely about ninety-odd percent the product of the R. O. T. C., to give them a polishing up before they took over these very important jobs, as you can imagine they must be, when 75 to 80 percent of all of the leaders with these so-called Regular units are from the Reserve Corps.

So our schools—for instance, the infantry school, at Benning, which involves about 10 or 12 different weapons, as well as tactics, has had to go up from 120 a year to over 600 every 5 weeks. and then have those officers go to the units. We are now carrying the additional burden of providing special training for the young officers who have been commissioned from the ranks of the National Guard, and who have not had that technical training that a Reserve officer from the R. O. T. C. has before he even receives his commission, and the additional training that we have been able to give them at Sill and at Riley and Benning and Belvoir, and the other special schools, before reporting to the units.

We have gotten over the hump. We have over 1,225,000 officers and men—1,155,000 men; with officers, 1,225,000. They are organized in divisions; they are organized in army corps; they are organized in field armies. We have a General Headquarters developed, in contrast with General Pershing's assembling his people in New York on the S. S. *Baltic*. It consists of a trained staff devoting itself largely at the present time to the training of the men; General McNair and his

people are established at the War College and includes the largest portion of its faculty, which practically lives in airplanes coordinating this thing throughout the United States so it is on a symmetrical basis.

I might say, in my last trip a week ago, and one 2 weeks ago, there was the highest morale I have ever seen, and the most encouraging and stimulating development goes along.

What other ideas would you like me to refer to?

Mr. FULTON. I think Senator Brewster wanted to know the plans you had made between May and September of 1940.

General MARSHALL. I generalized a little bit on that, because I was talking about the types of units we had to have, and we had to wait until we got our force back.

Senator BREWSTER. My question, when I asked it, was addressed primarily to the preparation for the possible bringing in of 1,000,000 men to train, addressed to the contingents. What studies were made looking to that possible eventuality, rather than the types of training?

General MARSHALL. We had had through the years the plans for an augmentation up to 4,000,000 men. Naturally the basis of those plans had been largely our experience out of the World War. Quite naturally the assumptions were that they would be put into effect if we were in a full emergency, practically in a war. The normal assumption of practically everybody was that we would not be permitted to do anything until we actually were virtually in a state of war.

Being in a state of war means a very rapid movement of troops, whatever their condition of training, as in 1917, through the zone of the interior into the theater of operations. That meant that we would deal in the South with tent camps; the troops would have to accept the difficulties and the hardships that come from a lack of previous appropriations to build up installations of that sort. And the type of building would be adapted to that rapid transit.

What the type of building would be in the theater of operations would depend entirely on where that theater was. In France, for instance, there were largely Adrian huts, something we had never seen before, until we got over there—not tents, because they were not suitable to that climate except as emergency treatment. But it would be a rapid movement.

I might say, Senator, I sailed for France with the first combat unit to go to France, the First Division. It was 80 percent recruits. The guns of a good many of the units were issued to them on the train going to Hoboken. We took the guns away from them on the boat because it is bad enough to have an untrained man with his weapons in restricted space, but when he is seasick it is impossible.

The officers for that unit, that is, the junior officers, were sent in from the training camps at the end of a month.

Senator BREWSTER. What proportion did you have of that group, of those officers of that untrained character; under 3 months' training?

General MARSHALL. I think practically all the second lieutenants in the division, and all the platoon commanders, came in from the training camps at the end of a month, and in those training camps they had no weapon technique at all. They were picked as being fine leader types. They were the finest looking men I think I have ever seen. Most of them were lost in the First Division over there.

But we sailed with units that we had never heard of. I was a General Staff officer of the division—until I was on the boat, and we couldn't ask the other ships whether they had the weapons until we got to France because we weren't allowed to communicate, and we found the units didn't have the weapons and had never heard of them except by reading when we landed in France. That was the way we moved in that emergency. We made all the plans against a repetition as far as we could. What we lacked we lacked through money not being appropriated, we lacked through not being permitted to be sufficiently realistic.

We had our plans on paper. We had, I think, maybe too much paper. We had various augmentations up to 4,000,000. The first was the protective mobilization plan force. That had started off without that name, and on a more ambitious scale, in earlier years, and it was decided through successive Chiefs of Staff that we had to boil it down to something that we had at least a hope of receiving congressional support for, and that came down to the initial protective force, which was the then existing National Guard and the then existing Regular Establishment at their then strength.

Senator BREWSTER. How many men did you have in training in this country during the last war?

General MARSHALL. That varied greatly, Senator, and I will have to get you the statistics on it. At one stage we had 2,000,000 in France and about 1,600,000 over here.

Senator BREWSTER. I asked that, addressing myself to the question of whether it must not have been contemplated that we would require very large training cantonments in this country.

General MARSHALL. It was assumed we would, sir.

Senator BREWSTER. And what I am interested in is the extent to which plans for those, both as to location and development, were prepared.

General MARSHALL. We had our mobilization plans for the sites throughout the South, where training could be carried on in any period of the year, and for the use of certain National Guard existing sites in the North if the season of the year permitted us to mobilize those troops at those points.

Senator BREWSTER. And in those southern cantonments the sites were selected, you say, in advance?

General MARSHALL. Approximately, sir; not actually, and I might say in connection with that that we had to follow the same procedure that we did in a great many other things. The actual survey of the site we would not have been permitted—I mean, a basic survey of it, because I don't think there is any doubt about it, we would have been forbidden from going ahead. We would have been attacked from every direction had we done that.

Senator BREWSTER. That was as a matter of policy?

General MARSHALL. A matter of public opinion, of congressional and administrative policy. In almost anything we said, Senator, we were viewed as alarmists. I think the Secretary of War said the other day that if some of these proposals had been made up here they would have examined the officer for his sanity. Our principal instructions to our witnesses were to be very careful that they built the thing up

instead of making the flat statement, because those views were practically not tolerated by the public.

In February 1940, I talked in a meeting before a historical group. I didn't have any preparation; I just went into it and talked—one statement I made was that compared to the Navy, which is 75 percent mobilized at all times, we at best were not over 25 percent prepared in the Army. Well, that was just for the purpose of illustrating the difference of the national policy. It was in no way a criticism. It was the national policy that the principal build-up would be behind the oceans and behind the Navy, that our great task was the development of a successful mobilization. What we wanted were a few divisions that were prepared to go anywhere if the administration and the Congress might decide that we should take action quickly. We had not been permitted to do that.

But beyond that our problem was one of mobilization, of a successful mobilization. The Navy's problem was one of operation. They were already 75 percent mobilized, and at the time I talked they were close to 90 percent.

And yet the mere statement that my guess was that we were only 25 percent prepared, considering all the motions that we had to go through, was very bitterly attacked in about February 1940.

Senator BREWSTER. I understand your position, then, is that you went right to the edge of what you felt was prudent in preparing plans.

General MARSHALL. We did what we were permitted to do through the process of the Budget and in keeping with the political party in power. By law I am not allowed to come up here and propose all sorts of things.

Senator BREWSTER. I am coming to that. But I am speaking now of the latitude which you enjoyed, which of course under the acts following the last war did provide for your making plans.

General MARSHALL. Yes, sir.

Senator BREWSTER. But you did not feel free to go forward with locating, for instance, the sites of cantonments?

General MARSHALL. No, sir.

Senator BREWSTER. Before we had actually taken action, because of seeming possibly to be a warmonger and an alarmist?

General MARSHALL. Exactly that. We had superficial estimates on sites, and we had a wealth of data in some respects of what had occurred during 1917-18 as to territory, terrain, and things of that sort, but the actual businesslike engineering survey, and the involvements as to moving people off, what we would be permitted to do, we couldn't go into that at all.

Let me give you two examples that might illustrate the difficulties: We have a site at Camp Dix. We already had an investment there. Now, the weapons have changed greatly since 1917-18, and also at the time of 1917-18 the artillery practice was not carried on by the divisions. It was carried on somewhere else. Now it is of vast importance that the artillery practice be in close contact with infantry during its whole training period, therefore the artillery range must be close to it, or your training does not progress.

Artillery weapons have increased greatly in range and danger space. Where you could have trained with the Infantry weapons of 1917-18, you couldn't do it at all now. About 75 percent of our National Guard target ranges have been thrown out by different range developments in the cartridges.

We go into Devens, and suddenly find that when we extend Devens, an old historic place located in the center of what would be the impact of all the shooting. Well, now, the issue was this: If that gentleman stayed on that place, we had to move an entire division away from Devens, because we couldn't train there. There was no question of sparing his house. It was in a danger space. That had to be dealt with right off. Could we be supported in displacing that man, doing him individually, and his family, a great hardship from a beautiful home and his ancestral place with a long history? Yet the whole training of the division at Devens hinged on that one item.

Now, since that, about 3 months ago, on the advice of three officers, the Deputy Chief of Staff for that sort of thing, General Moore, who is an ex-Engineer officer, and the Assistant Chief of Staff of the division that handles all that sort of thing, General Reybold who is also an Engineer officer, put there for that particular reason as an Engineer officer, and General Somervell, who is in charge of construction, I was convinced that we should have at least 6 months' advance treatment before we became involved in any other cantonment construction, if that happened to prove necessary. They thought it would take at least 6 months, and would require a minimum of \$15,000,000.

Now, they have been working on the superficial survey. I use the expression "superficial" in contrast to the actual engineering tests for soil, rock, water, drainage, and everything of that sort. They have been at that for 3 months. They have had me involved, it seems, with every chamber of commerce in the United States in one way or other. I am not very popular, I might say. And they have only arrived, at the present time, at the end of 3 months, with seven cities to propose for General Somervell to go ahead with a more exacting survey, which would involve the expenditure of definite funds.

It is a very difficult thing. There is a tremendous factor as to what you can take of this. Can we displace these people? Will that be supported? Can we do this, can we do the other thing?

But out of a possible 28 sites, as we visualize at the moment, we now have the 7, and those haven't been decided and have not yet been turned over to General Somervell, and 3 months have elapsed.

We didn't have to be secret about this; we couldn't have been. We could go ahead and do it. At the time of which you speak, such a survey as that would have been halted in midair if we had even got started on it, so we were confronted with the necessity of going over ground and looking at it and seeing what we thought probably would be obtainable, and even so we have been shoved here and shoved there.

Senator BREWSTER. I assume that on a major question of policy of that character, as to whether or not you should carry out such surveys, the final decision necessarily must be by the Commander in Chief?

General MARSHALL. With the support of the Congress.

Senator BREWSTER. Well, I meant—now I am speaking of this preliminary. You see, what I am addressing myself to is this 3-month period. I feel that if there were any criticism of what later happened as a result of not having plans, it can probably only be addressed to this few months preceding the final action of the Congress, and as I understand, the failure to do that which you would recognize, I gather, as being very wise, was the result of this broader question of policy that was involved, that it would seem that the War Department was going to war.

Now, I assume that certainly that was a matter that was gone over with the Commander in Chief, who was primarily responsible for whatever position our Government should take. If this is violating confidences—

General MARSHALL. I think I have sort of misled you somewhat. We were going ahead with planning all through the summer, and very vigorous planning at this particular time—May, and particularly June, July, and August.

Senator BREWSTER. After the French debacle?

General MARSHALL. Yes, sir. There had been planning before, but then we were getting to very definite terms in the business. Where I spoke of the changes out of organization, those changes affected the types of cantonments, they affected the amount of land that had to be available. For instance, an armored division takes quite a bit of a different set-up from one of the others. It is very destructive to property. You have to have a tremendous range of land, or you can't train the unit. You can't have trespass rights alone, because the tank itself does so much harm.

How many of those divisions we were going to have, what types they were, what sort of cantonment do you build for that, what difference in the road set-up is involved in that, what is the antitank unit, are some of the questions involved. For example, we found ourselves, even so, building cantonments that didn't provide for the antitank minor organizations that later we organized. We are struggling with that right at this minute, and other organizations have developed in the same way that affected the general plot of a cantonment set-up and made it very difficult for the allotting of plain contracts, where these changes were involved in the procedure and where these changes of organization, like an armored force, produced the necessity for an entirely different type of reservation.

Part of the money of that \$29,500,000 that the President gave us of his emergency fund was for planning purposes. We used part of that—I forgot to mention that at the time—to hire draftsmen, to get architects, to put a big force to work, and we had quite a difficult time in finding any place to accommodate them. We went out to Myer, where the depot is located, threw out all of the storage in some large buildings that had been built there for a specific purpose, and filled them full of architects; but we had to get the money to hire those people, and that money came first out of this \$29,500,000 that I first referred to.

Senator BREWSTER. What I am addressing myself to is what I understand will be developed later by members of your organization, as to the very great difficulties and expense which was subsequently experienced in the cantonment construction by reason of the haste under which you were compelled to do it, and I think that if any question is raised regarding that, which I assume there certainly will be, it must to some extent go back to this preliminary period.

General MARSHALL. Yes.

Senator BREWSTER. At which time it seemed proper to proceed with detailed plans, but what General Somervell is now doing in more leisure.

General MARSHALL. This money that we received from the President's special fund was the first money we got for that.

Senator BREWSTER. What was the date of that?

General MARSHALL. August 2d.

I have thought of several things that may illustrate what you are trying to get at. They made their plans for these cantonment structures. They started in on this fixed-fee contract basis of doing it. Now I personally come into this. This will explain part of it right here. The dates, now, are sometime in the latter part of September, instead of being in July. The troops are going to come in there during the winter, instead of starting in the summer. Quite evidently or conclusively they are going to be in this country in training for at least a year, rather than hurrying right through to a new field of operations.

Now, in that situation I personally changed the plans in these particulars that I think of at the moment. I directed them to paint these cantonments. I think that was eleven or twelve million dollars. I did that. They had not provided for paint. They didn't paint them during the World War; they were used in a transitory way, the troops were not in the cantonments very long; somebody else came along later, there was all the great enthusiasm of a war effort, and everybody concentrating on these cantonments, almost too much to stimulate the young men to their work.

This was quite a different situation. My thought was that to pen these men up for a year in unpainted buildings like a lumber yard not only wasn't fair to the men, but what was more important to me, would have a definite effect on morale, and I personally took the responsibility for having them all painted. There is one sum of money of eleven or twelve million dollars.

Senator BREWSTER. Right there, on that, that was part of what might be properly termed a 5-year plan for the cantonments, wasn't it, looking to the carrying on of this?

General MARSHALL. Yes, sir; but I was thinking at the moment of this first 1,400,000 men that we had to have on a solid, fine basis of morale and high training behind which we could do anything else that might come up. They had to have a degree of training and a degree of morale that was going to surpass anything coming after, because the next things would of necessity have to be done in a more superficial manner, because they involved such vast expansions.

Senator BREWSTER. That would explain ten to twelve million deficiency.

General MARSHALL. Yes, sir.

I want to give you the idea of the thing. The next thing I found on going into this, in the change of plans of July and June, was, that out in the Northwest we would have a National Guard division taking the field in Fort Lewis at the beginning of the winter season, which means about 6 months of rain.

Across the road were regular troops housed in permanent construction. These National Guardsmen would have started off their intensive training housed in a temporary tent camp, which at the start might not be completed. Realizing that this would have an adverse effect on morale, I directed General Moore to convert that semi-cantonment to a full cantonment. This meant not just tents but barracks for the men, and it was evident that any other arrangement would have produced an unfortunate effect on morale.

I did that, and I don't know whether or not I did it in another case; I have a vague recollection, but I know I did that. The next thing, in the middle of the construction we found—Wilson here, for example, whom I had traveling all over the country¹—found we could make use of gas in a number of these camps; while the first installation was a little more expensive, the eventual result would be of tremendous advantage to morale, and future expense, so we put in gas for the cooking and gas into the tents.

I have just come back from the division from Minnesota, that part of the Northwest and several others down there, but I remember that particularly from General Walsh. He spent more time in his appreciation of the gas than of any other one thing. Well, I sort of understood that was under criticism. It occurred to me then that I might later break the news to General Walsh that he would make a good witness up here, because he could point out the tremendous effect on morale. That involved cost complications, but I think all was to our advantage.

Another one that I think of offhand was in relation to the first induction of these men. Four divisions and about 18 regiments came into the service on September 16. We would have preferred to have delayed that about 2 weeks; that would have helped us a great deal, those 2 weeks between the time the money was appropriated and our putting it into action to prepare for these people. Frankly, it was felt by a large number of people who were better versed in the reactions than I am that if we delayed as much as 2 weeks we jeopardized the Selective Service Act. It then became necessary to go ahead without that advantage to us of 2 more weeks with some money. Among other things we had to build a tent camp for the Forty-fourth Division against the difficulties of winter construction that they were getting involved in there, and labor, on which I think the original estimate made by Colonel Vaughn, was \$900,000.

He did not want to take that division and be responsible for it unless he had approximately that sum of money to fix them up a temporary winter camp, or until the full cantonment was constructed. Consequently I authorized, or rather I directed, that they give him that money. There was a feeling on the part of the staff that the sum ought to be pared down. I didn't think so. I didn't think we could afford at that time to jeopardize morale, to risk health and entail great many other risks that would be far more serious than a possible overestimate on the part of the authorities who were going to be responsible for the well-being, the health, and the morale of that particular unit.

I ran into virtually the same thing up in your region.² Docks had been allowed to fall to pieces through the years from parsimony as to military appropriations, and yet here were these men going into these coastal defenses. They wanted to delay that in New England. I went up there personally in regard to it because a delay of even a week was felt to be a very serious matter. I took part of those troops and sent them clear down to Texas for training. I moved the regular troops away from Portland to vacate the barracks for the National Guard, and put the Regular troops in tents down on Cape Cod to make the best of it.

¹ Col. Arthur R. Wilson.

² Maine.

We had to shelter the men in the Army base in Boston and send them out by boat to their various coast defense stations there because they had all fallen into such a state of disrepair that we couldn't use them at the start and we needed 2 or 3 weeks to work on them before we could put the troops in. That was the state in which we approached that particular period. That was where some of the money was spent. That wasn't construction money. That involved the sending of those men clear down to Texas; that was transportation money. It created a deficiency, though it was money just the same, but all those things were involved in this matter, and that is the way we went about meeting them.

Senator BREWSTER. I think in the broad range view, which of course this committee is trying to take, it would be very helpful if you could have your proper authority prepare a list covering let's say the last 10 years of the actual recommendations by the War Department for preparation.¹ Second——

General MARSHALL (interposing). I think we have that already prepared.

Senator BREWSTER. Second, of what the Budget has actually allowed you;² and third, of what the Congress has annually given you.³ I think if we could have those things right in a row it will help very much to place responsibility.

General MARSHALL. I think we have most of that now, sir; but it will all be prepared for you.

The CHAIRMAN. General, I want to ask you a question.

General MARSHALL. May I add one little item to what the Senator said? I would like to say this, Senator. I felt throughout this whole business that it is the result of a very natural reaction on the part of the public. In my experience up here, my own personal experience, I felt I fared pretty well with the Congress. In fact, I have generally gotten more than was in the Budget figure.

Senator BREWSTER. You come at a very fortunate time. I don't want to reflect on your predecessors, but Mr. Hitler helped you out.

General MARSHALL. I admit I timed a lot of my requests with Mr. Hitler, but even before that I was quite surprised to find how accurately—it should have been a matter of common knowledge to me before—the Congress reflects the desire of the people.

Senator BREWSTER. I think that is a fair picture.

The CHAIRMAN. General, there has been some complaint on the treatment of the National Guard and Reserve officers in the late induction. Is there any tendency on the part of the Regular Army to discriminate against the officers of the National Guard or the Reserves?

General MARSHALL. Senator, I am glad you asked that. I should say it has been quite the contrary. To use the expression, we have leaned over backward until we almost fell over backward, in the effort to avoid just what you are talking about. I have gone to every conceivable length because for very important reasons, because I regarded from the viewpoint of national defense that it was of vast importance that if we inducted this Army it should be a harmonious group, and not one filled with dissensions, that that was of vast im-

¹ Subsequently entered in the record as "Exhibit No. 36" and included in the appendix on p. 364.

² To be presented before the Committee at a future date.

³ Ibid.

portance and concessions, moderation and modifications time and time again were taken in order to make certain that as the whole assembled it would be a harmonious group with a one-army spirit.

The CHAIRMAN. Do you find that one-army spirit among National Guard and Reserves?

General MARSHALL. That requires a great deal of training, of course, before it is fully developed. The Army has the triple burden of training its own partially trained men that it originally started out with, and with them training the volunteers who came in before the selective service, and with those two in process, of their own training, training the selective service men who have come third. Now the measure of the probability is the splendid morale, the way they are going at it, and they are getting hardened more every day; they are getting a more practical slant on it every day; and my hope and my belief is as we come to the division, and particularly the corps maneuvers in June and July, you will really begin to see the blooming of an effective force.

But, of course, they have a great deal of hardening and general training to go through, and they have so many new officers in the lower grades in the National Guard who have come from the ranks, whose technical training has to be amplified tremendously. I might say in that connection—you referred to the Reserve Corps—that the most valuable single measure of national defense we had available was the Reserve Corps built up by the R. O. T. C. That has been of more positive assistance in meeting this emergency than any other single thing that has been provided by the Congress.

That is the one thing we have where for the moment at least enough officers are available to move out. The basic education those young men had received during their college training of 3 to 4 years, the training they had gotten in these high-pressure summer camps of 6 weeks, under Regular officers, and the quick 3-month's polishing we gave them in what amounted to a post-graduate course, has given us a splendid corps of leaders, which we completely lacked so far as technical, professional attainments—not quality, as men was concerned, in 1917.

PROMOTION POLICY IN ARMY, RESERVES, AND NATIONAL GUARD

Senator CONNALLY. General, the matter of promotions. Have you a policy regarding the Reserve and National Guard? Are you taking care of the promotion of those officers along with the Regulars; or not?

General MARSHALL. The promotion? We are just now coming into a general policy, applying all over the field. As to the Reserve, as to the National Guard, and as to the Regular Establishment, it has a great many complications involved and we think we have ironed out most of the difficulties. I will illustrate.

Senator CONNALLY. This will help you, probably. You still treat the National Guard and Reserves as separate entities? You promote within those codes do you?

General MARSHALL. It is now coming into a general proposition.

Senator CONNALLY. Go ahead.

General MARSHALL. What has happened is this, Senator. I can best illustrate it in this way. The promotion of the Regular Estab-

lishment had been regulated on a pay basis. The promotion of the Reserve Corps had been regulated on a period of years without any relation to pay because there was practically no pay involved in it. The promotion in the National Guard was regulated purely on a vacancy proposition, according to the vacancies that occurred in their units; so you had three different bases for promotion with the added complication that in the Reserve, while they could qualify at a certain time, so that they were eligible according to years, there had to be a vacancy in the procurements lay-out for the proposed Army.

Well, now when we brought these people in in this rapid way we have these sorts of situations developed. I will take a specific place. They came to me and said that at one big school, the instructor in charge of one of the subdivisions was a captain; he had had 16½ years' service; he had three or four or five or six—I have forgotten—reserve assistants, excellent men. He had three, I think, that had had 12 years in the Reserve Corps, with probably less than a year's active service, but 12 years in the Reserve Corps.

Now they were all going over his head. He had had 16½ years but his promotion rate was 17 years on the pay basis. Their promotion rate was 12 years on a length of tenure in the Reserve Corps. Now, in order to prevent that sort of an upset going where the man with the long experience and professional training was going to be subordinated to a man with only about a year's active service and 12 years continuing, we temporarily promoted a certain number. Actually what we did was to promote 1,000 regular officers of over 12 years' service and take in 3,000 majors of the National Guard.

That was the way in which that was accommodated, but the representative of the personnel section of the General Staff can analyze just how we are approaching it on a solid basis for all three components.

Senator CONNALLY. You have 335 general officers now, have you not?

General MARSHALL. I don't remember the number, sir; probably more than that, Senator. I remember a conversation you and I had about generals once.

Senator CONNALLY. It was a very pleasant conversation on my part—and yours, too. How many generals did you have before the emergency?

General MARSHALL. Sixty-seven line officers.

Senator CONNALLY. How many in all?

General MARSHALL. Ninety-nine.

Senator CONNALLY. Are any of those—some of those general officers of course are National Guard officers?

General MARSHALL. Those are Regulars, sir.

Senator CONNALLY. But you do have a lot of National Guards?

General MARSHALL. Oh, yes, sir; they came in with all their generals; when they came in each division had a major general and three brigadiers; whereas at the start we had a whole lot of divisions instead of having three generals, we had only one to a division. We had colonels commanding brigades, and so on.

Senator CONNALLY. I believe that is all.

General MARSHALL. May I add a little to that? What you are discussing to my mind involves one of the most important things we

have done. No matter how much money you appropriate for material and pay, it is largely ineffective unless you have leadership.

Senator CONNALLY. Of course.

General MARSHALL. And if leadership depends purely on seniority you are defeated before you start. You give a good leader very little and he will succeed; you give mediocrity a great deal and they will fail. That is illustrated everywhere I turn. These rapid tours I make around the country disclose that as the most impressive thing. You see the effect of leadership in handling the flu, in the construction of a cantonment, in doing anything. It depends on leadership. Now, the minute we group three or four or five regiments—take in the aircraft regiments, antiaircraft, they are not organized in divisions and things of that sort, you see, but here is a group for training. Here are antiaircraft requirements that are merely that in name and being converted from units in the National Guard. These people are all assembled for training. Now the quality of the unit, the rapidity with which it is developed, depends very directly and in certain measure almost completely on the leadership of the man in charge.

We have to take the best man we can get and put him there, and the only way we can do it is to promote him and put him there. I might say that the only thing in this appalling expenditure of money incident to this defense program that doesn't cost us anything is a brigadier general. Maybe in some instances \$25 a month, most of the time nothing at all; it is all honor and a cotton flag, but it means everything in leadership.

Senator CONNALLY. That is because, of course, you base your advancement on years of service and pay rather than rank.

General MARSHALL. No, sir; that is due to the fact that, practically, when they amended the Army pay in 1922, I don't think they touched the brigadier generals' pay, but in 1908 the only way they could get the increase was to crowd the colonels' pay against the brigadiers'; the colonel and the brigadier ought possibly to get the same pay, but one is in command, which is the important part.

Senator CONNALLY. Now your regular promotion system, permanent, depends more on years of service than it does on rank?

General MARSHALL. Yes, sir.

Senator CONNALLY. An officer is paid by the number of years he has served?

General MARSHALL. In a large measure; there are some qualifications.

Senator CONNALLY. You call it "fogies' pay periods"?

General MARSHALL. It used to be "fogies" in the old days when you were in the Army. I might say now, sir, that most of the men we have promoted in the Regular Establishment on a temporary basis got no increase of pay, and they are serving side by side with men of the same grade in the National Guard, in the Reserve, who are getting more pay than they are.

Senator CONNALLY. Of course you are making those promotions now in the Selective System, are you?

General MARSHALL. Well, those were to a certain extent block promotions, where, as I referred to, we took the captains of over 12 years' service in the Regular Establishments and made them majors. I think the majority of those got no increase in pay at all.

Senator CONNALLY. I am not concerned with the pay basis. You were talking about leadership a while ago and getting the right men. Two might have the same rank and one of them might be quite superior; don't you use selective processes at all in your promotions?

General MARSHALL. Oh, yes, sir; we are doing that, too. I might give you another illustration. For instance, we have a lieutenant general; you and I were discussing lieutenant generals and you helped me out. Delos C. Emmons is the lieutenant general at the head of the G. H. Q. Air Force; he doesn't get a dime for that; he gets the same pay he got before; he is the head of the Air Force, but he doesn't get any money for that at all.

Senator CONNALLY. He gets more stars.

Senator WALLGREN. Just what part do you play in the letting of National defense contracts?

General MARSHALL. I am not involved in that, sir.

Senator CONNALLY. Will you let me ask one question? Pardon me. General, I want to ask you about those maneuvers down there in Louisiana and Texas. You spoke about the 70,000 last year, wasn't it?

General MARSHALL. Yes, sir.

Senator CONNALLY. I saw a criticism by some general officer.

General MARSHALL. General Brees, probably.

Senator CONNALLY. Probably it was. What was there to that?

General MARSHALL. That was the purpose of the maneuvers; we didn't intend to have that publicized all over the United States, but we wanted all the officers to know it. That was his view. That is what the maneuver was for; it was the first time we had had the corps together. We wanted to take it apart and put it together; there were a great many things wrong, but that is the reason we did it. We are going to have more maneuvers in June and July and we are going to find a lot of things wrong then. We want them all to know it. It is embarrassing to us when we deal with the errors and then it is given a personal application and great press publicity; it is hard to manage that part of it; but the purpose of the maneuver is to find the mistakes, out on the football field, as it were.

Senator CONNALLY. Were those criticisms somewhat merited?

General MARSHALL. There is a difference of opinion about it, but they were very valuable to us, however.

Senator CONNALLY. He leveled a broadside not only to National Guard but largely at the—

General MARSHALL (interposing). Regular Establishment.

Senator CONNALLY. And general officers and all that sort of thing, who are supposed to have been studying all these things since the World War.

General MARSHALL. They have never had a team, sir.

Senator CONNALLY. Gave a pretty bad shot.

General MARSHALL. That was because it got great publicity, when that is the first time they had a corps. We had been studying about it and reading about it, but there is a vast difference between that and doing it, and there is a difference of opinion regarding his criticism. He is an excellent officer, but his is not the last word.

Senator CONNALLY. That is the reason I was asking you.

General MARSHALL. It was very instructive because it produced a great deal of debate on both sides of the fence, and then the Germans

came along and did a plunge not entirely unlike that, in that they went down the line with trucks and this and that and the other. It is a question of who was right and who was wrong, but out of that comes a pretty solid reaction as to what probably is the best way to do it.

Senator CONNALLY. Thank you.

Senator WALLGREN. I asked the question, General, what part you played in the letting of national-defense contracts and you said that you were not in that.

General MARSHALL. The contracts are handled in the office of the Under Secretary.

Senator WALLGREN. And you make no recommendations as to sites?

General MARSHALL. He is involved with us as to where the camps are going to be, and he supervises contracts; but it is my responsibility, as to the camp here or the camp there.

Senator WALLGREN. You don't make any recommendations as to locations or sites?

General MARSHALL. I am just saying that that is my responsibility.

Senator WALLGREN. That is your responsibility?

General MARSHALL. Yes, sir; that is clearly my responsibility.

Senator WALLGREN. You know that the Federal Government owns considerable land in many of these States?

General MARSHALL. Yes, sir.

Senator WALLGREN. And why——

General MARSHALL (interposing). I am personally familiar with a good bit of it, too.

Senator WALLGREN. Why can't the Army utilize some of this?

General MARSHALL. I can have some of my people here analyze the pros and cons of that, but we used as much as we could. There are a great many things, climate, water, the type of land, rock standing on edge. For instance in most of the great national parks out in the West, with which I am familiar, training would be purely mountain climbing.

Senator WALLGREN. Yes; but we have a great deal of public land.

General MARSHALL. You couldn't train, for instance—take this winter; suppose we had put our Army in some of the great spaces, we will say out toward Wyoming and Montana. I would be responsible there, also, to the people for the general freeze-out while we were trying to train. We had to get into a section where we could promote the training, where it didn't cost us an exorbitant sum for the land and wherever we possibly could arrange it we used as much Government land as was possible. But let me illustrate: There has been a great deal of talk about a camp down in Georgia, because of malaria threats. The malaria part came up when I started to drain the swamps. I found that we were affecting the duck industry.

These anti-aircraft ranges require a tremendous territory, and you naturally have to use cheap land. I didn't feel that we could establish troops in the Mojave Desert for longer than a week at a time. We couldn't put them around El Paso because we already had a great many troops in that area. So we had to go near the coast for two reasons. There is some shooting over water, and we had to find a place where we could get a wide area at a cheap enough price so that we would not be bogged down in a terrific outlay for the purchase of land.

So you may find a camp in a place that is not wholly salubrious. Within the past 3 or 4 days I have received a letter from the colonel commanding one of the regiments in this particular camp they are talking about. I had been told that this regiment had 90-percent sick and that it was in a terrible condition. Out of the six regiments there, I think the highest hospitalization was 3.6, which is below normal, and the lowest was 1.9. The regimental commander said that in his 20 years of service, this is the best camp he had ever seen, which is quite a contrast with other reports.

Senator WALLGREN. The selection of these camp sites, is that wholly your responsibility?

General MARSHALL. Yes, sir; that is my responsibility.

Senator WALLGREN. And does that apply as well to proving grounds?

General MARSHALL. No, sir.

Senator WALLGREN. Who takes care of that?

General MARSHALL. When you get into these powder plants, proving grounds, and things like that, I am only involved in where we lay down a policy to stay certain distances back from the seacoast, to get into certain areas that would be less difficult to defend against bombing or other attacks. Other than that I am not involved in that.

Senator WALLGREN. That is all.

Senator BREWSTER. In the matter of promotions, that must be a matter submitted by you to the President?

General MARSHALL. I submit it to the Secretary of War and he in turn to the President.

Senator BREWSTER. So the President is the one who takes final action in those matters?

General MARSHALL. Prior to confirmation.

ASSIGNMENT OF OFFICERS IN UNITED STATES ARMY

Senator BREWSTER. Now in the matter of assignment of officers, where does the final responsibility there rest?

General MARSHALL. In the vast majority of cases, I am responsible.

Senator BREWSTER. Do you take it up?

General MARSHALL. If it concerns higher commanders of great importance, I discuss that with the Secretary and also discuss it with the President.

Senator BREWSTER. But that isn't required under the regulations you would have?

General MARSHALL. The regulation doesn't read that way but the President is Commander in Chief and this is an emergency, and if it is a commander in Panama or commander of the field army, or something, naturally—

Senator BREWSTER. On less than other than what might be called strategic positions, you are able to carry on in that respect?

General MARSHALL. I thought you were talking about individual officers, rather than units.

Senator BREWSTER. I am thinking of the entire assignments to command in various departments.

General MARSHALL. You are talking about commands; I was discussing this from the viewpoint of individuals. Strategic units are something else. There it depends in some cases. For example, with regard to camp reconnaissances, which have boiled down to about

seven sites at the present time, I was going to discuss the matter with the Secretary of War. He won't have time to go into it, but I thought he ought to see it.

Senator BREWSTER. Now, taking below the senior positions of command, in the various departments and areas, you do have considerable discretion in that regard? You have spoken of the matter of assigning leaders.

General MARSHALL. Yes, sir. I have a great deal of discretion, a great deal of discretion.

Senator BREWSTER. So you are able to pick out what might be termed your quarterbacks and ends and assign them where they will do the best job?

General MARSHALL. Yes, sir; that is within my responsibility and opportunity.

Senator BREWSTER. You may have spoken of this while I was out; if so I will withdraw it. But I wanted to ask you about the status of West Point graduates in recent years, who have retired, who have for one reason or another left the service. What is their status?

General MARSHALL. Of those who have retired, we are calling back the physically able men to active duty as we need them. And as to those that have resigned, those who are young enough for the grade they held when they resigned are tendered appointment in the Officers Reserve Corps. However, there will be few in that category.

Senator BREWSTER. In other words, most of the men whom we have educated there in the past 30 years, who are in the condition to render service, are available for service?

General MARSHALL. Yes, sir; and we have taken men back in who are—I don't want to embarrass them by mentioning their names—in very bad physical condition. It doesn't affect their retirement; they are retired anyway; there is no Government involvement of funds, and they were willing to make the sacrifice and glad to do it.

Senator BREWSTER. You can in many cases place them where they will be as serviceable as though they were physically fit.

General MARSHALL. We have one now in a most important position who has a very bad heart, and it is quite a danger, what he is doing, but he is glad to do it.

Senator BREWSTER. I have in mind that we have a considerable investment.

General MARSHALL. We are using all of that. You remember when we asked for the authority we requested that it include the provision "with or without their consent," and we have been going on that basis.

The CHAIRMAN. It is now 12:20 and the Senate is in session. General Twaddle, could you testify this afternoon at 2:30?

General TWADDLE. Very conveniently.

The CHAIRMAN. The committee will take a recess until 2:30 this afternoon.

(Whereupon, at 12:25 p. m., the committee recessed until 2:30 p. m.)

AFTERNOON SESSION

(The committee resumed at 2:30 p. m. on the expiration of the recess.)

The CHAIRMAN. The committee will come to order.

TESTIMONY OF BRIG. GEN. HARRY L. TWADDLE, CHIEF, OPERATIONS AND TRAINING DIVISION (G-3), WAR DEPARTMENT GENERAL STAFF

The CHAIRMAN. You may proceed, gentlemen.

Senator BREWSTER. May I put something in the record? This morning in asking about the appropriation record, there was also a question raised about the reports and recommendations of the Secretary of War and the Chief of Staff of the Army over the period of the last 15 years, or so, and I would like to ask whether there may be someone here from the staff who could furnish such a record.¹

General TWADDLE. That information can be furnished the committee.¹

The CHAIRMAN. I will ask you to put that in the record.

Senator BREWSTER. At this point we want to have that tabulated alongside the recommendations in the Budget.

The CHAIRMAN. General, we are going to listen very carefully to your statement and will allow you to finish the statement without questioning, except where it is absolutely necessary, but I want to say to the members of the staff of the War Department that we are not so much interested in statements from now on as we are in information, and when the witnesses from now on are on the stand for the committee they can expect to be questioned at any time by any member of this committee, whenever he sees fit to ask the questions. I promised the general just before the noon recess that we would allow him to make this statement without interruption. We will proceed under that procedure this afternoon, but from now on I want it distinctly understood that questions will be in order at any time, of witnesses following the general on the stand. Proceed, General.

General TWADDLE. Mr. Chairman, before I start, sir, may I have your permission to digress from time to time in the statement, in order to introduce certain documents which we would like to present to the committee?

The CHAIRMAN. That is permitted; yes.

General TWADDLE. And at the conclusion of my statement if it meets with your permission, sir, I have here several statements including summaries of the events which led up to the selection of certain sites like Fort Meade, Md., and Camp Blanding in Florida.

The CHAIRMAN. The committee will want to go into details on those and you will be questioned when those are presented.

WAR DEPARTMENT MOBILIZATION PLANS

General TWADDLE. In representing the G-3 Division of the War Department General Staff, it is appropriate that first I tell you briefly of the scope of the activities of that division. The Assistant Chief

¹ Subsequently entered in the record as Exhibit No. 36, see appendix, p. 364.

of Staff, G-3, is directly responsible to the Chief of Staff for the development of policies concerning, and the preparation of plans for, the mobilization of the Army, and its organization and training.

The number and type of plans prepared by the War Department as a whole is multitudinous. There are two basic sets of plans, however, that I would like to outline briefly as knowledge of these is necessary for an understanding of the discussion that follows. These two basic sets of plans are, first, the War Department mobilization plan prepared by the G-3 Division, in collaboration with other interested staff divisions, and which comprises several subordinate plans within itself; and, second, the various strategic plans prepared by the War Plans Division. It is not in my province to go into detail concerning these latter plans except to say that they cover the concentration, movement, and initial employment of our field forces, or parts thereof, to meet a particular situation. They are basically strategic plans and the choice of the one to be used is governed by the conditions confronting us at the time the choice must be made.

The purpose of any mobilization plan, broadly stated, is to provide for the creation of a balanced armed force capable of employment for purposes of national defense in the event of a major emergency. The creation of this force must proceed in an orderly manner and according to a predetermined schedule. The chief factors influencing this schedule are the rate at which manpower can be procured to form the force and the rate equipment can be procured to arm the force. When these two factors have been determined and properly balanced, the framework of a mobilization plan has been built.

The War Department felt that it would be unsound to build a mobilization plan, or even a set of mobilization plans, based on any assumed specific set of conditions. Instead, it was decided to take the two known factors—rate of procurement of equipment and rate of procurement of personnel—and combine them into a plan sufficiently flexible that it would fit any particular set of conditions which might arise. Details of this plan could and have been changed to meet changing conditions; but the framework remains the same. It should be kept in mind that this plan has one specific purpose and only one. That purpose is to create in the shortest possible time which the resources of the Nation permit, a trained and equipped army, capable of meeting any demand which may be made of it.

The development of the War Department mobilization plan began shortly after the close of the World War and has been a continuing process up to and including the year 1940. The 1940 plan was the one on which the present partial mobilization has been made.

Senator BREWSTER. Would you indicate when you say the 1940 plan, when that was made?

General TWADDLE. That was approved and distributed on March 29, 1940. The original War Department Mobilization Plan, published in 1921 and tentative only, contemplated an army of 4,500,000 men in the theater of operations within 19 months in addition to approximately 2,000,000 men in the zone of the interior. While this plan appears ambitious, it was based on large stocks of supplies remaining from the World War and an industrial capacity still geared to war effort. From 1921 through 1936, various downward revisions of the original plan were required due to falling stocks of equipment and the growing inability of industry to shift back rapidly to the manufacture

of war equipment. A further factor which required downward revision of mobilization plans was successive reductions in the strength of the Regular Army which served, necessarily in any expansion plan, as the nucleus around which the new army must be built.

In 1936, the War Department's study of the procurement possibilities of American industry in relation to the mobilization plan indicated that equipment could no longer be procured in the initial months of a war in sufficient quantity to make a plan, such as had been contemplated up to that time, feasible. The conception of the extremely rapid mobilization of an army of the size visualized in previous plans was abandoned as being neither practical nor desirable under conditions as they then existed. An analysis of the needs of national defense indicated that mobilization should proceed in the following stages:

First, the initial mobilization of a small but well-trained and equipped force, composed of the Regular Army and the National Guard, and to be known as the initial protective force. This force was to be ready for use 30 days after the incidence of a national emergency and was given the mission of protecting the continental United States (including Hawaii and Panama) while larger forces were being mobilized.

Second, the mobilization of an additional force of approximately 700,000 men in successive stages and on a schedule consonant with the production schedule of which industry was capable. The manpower mobilized in these 2 forces would total approximately 1,150,000 men and the plans for this mobilization are collectively known as the protective mobilization plan.

Third, the augmentation in successive stages of the force mobilized under the protective mobilization plan to a total force of 4,000,000 men. This augmentation would likewise follow a definite schedule, the additional manpower being procured at a rate not greater than that at which equipment could be procured. Under the above plans, mobilization would be complete by the end of 390 days after it had begun. This plan differed radically from its predecessors in that, at any stage from M (the day mobilization began) to 390 M. (the day mobilization was completed), a balanced force was to be available for use as needed. In other words, the plan substituted for the unhealthy mushroom growth of the Army during the World War, a controlled and even growth about the nucleus of the force which would be available when mobilization began.

At this point, Mr. Chairman, with your permission I should like to digress and to invite the committee's attention to the fact that the War Department has made exhaustive studies of the methods used to build an Army during the World War so that the mistakes made then would not be repeated. You may be interested for the purpose of comparison to review the chaotic conditions of the mobilization which existed in '17 and '18. Time does not permit to go into detail on the subject; however, I have here a study which summarizes the methods then used to organize and train an Army, which I should like to pass on to the committee.

The CHAIRMAN. That will be filed in the exhibits of the committee. (The study referred to was marked "Exhibit No. 10" and is on file with the committee.)

General TWADDLE. Based on this conception, the protective mobilization plan of 1937 was prepared. Due to the large amount of de-

tailed work involved, this plan was not completed in all its parts until the following year, at which time—with certain revisions—it became the protective mobilization plan, 1938. The 1939 and 1940 plans did not differ basically from the 1938 plan, being refinements thereto to bring the preceding plans up to date. These revisions were necessitated chiefly by increases in the over-all strength of the Regular Army and the expansion of certain arms within the Regular Army such as the Air Corps and the armored force.

I have here with me a copy of the War Department's protective mobilization plan, 1940, with the annexes thereto. This plan in conjunction with our mobilization regulations which have been prepared over a course of years, constitute the working basis for our current mobilization. I should like also to submit those to the committee.

The CHAIRMAN. They will be accepted for the record.

(The documents referred to were marked "Exhibits Nos. 11-A to 11-D" and are on file with the committee.)

Senator BREWSTER. Does that have reference to the question of industrial mobilization at all?

General TWADDLE. No, sir; this is entirely separate from the question of industrial mobilization. However, I might state for your information, sir, that this plan is the basic plan which sets up all of the requirements for equipment and so forth, and the Under Secretary of War's office plans are based upon the troop basis of this plan and determine the number of items of equipment necessary to arm the force.

Senator BREWSTER. You simply tell them what you need and then it is up to the industrial end under the Under Secretary to provide that?

General TWADDLE. That is correct, sir. We tell them what we need in the way of units, based upon those units and the tables of organization, which shows the equipment that a particular unit is supposed to have. They can complete the whole calculation of all of our equipment requirements.

Still digressing from my statement, sir, in the process of planning of the War Department it is required that all of our subordinate agencies, such as the chiefs of arms and services and the corp area commanders prepare their plans, based upon the War Department's protective mobilization plan. Those plans are prepared with considerable detail and submitted to the War Department, reviewed, and comments are prepared and returned to the agency that submitted it. All with the idea of perfecting plans as we are going along with each revision. I have brought with me here several of those plans, not all of them, but a number of them, merely to show to the committee the magnitude of planning within the War Department. I have nine corps-area plans, some of which were revised in 1939 and some based upon our protective mobilization plan of 1940.

The CHAIRMAN. We will accept them for the record.

(The plans referred to were marked "Exhibits Nos. 12-A to 12-I" and are on file with the committee.)

General TWADDLE. In addition I have eight plans of chiefs of arms and services, chosen more or less at random; chief of Cavalry, the Field Artillery, Coast Artillery, Chemical Warfare Service, signal officer, Chief of Finance, inspector general, and the Quartermaster General.

The CHAIRMAN. Let them be entered in the record.

(The plans referred to were marked "Exhibits Nos. 13-A to 13-H" and are on file with the committee.)

General TWADDLE. In addition to that I have selected six other subordinate plans which I would like to submit to the committee for their information.

The CHAIRMAN. They may be entered.

(The plans referred to were marked "Exhibits Nos. 14-A to 14-F" and are on file with the committee.)

General TWADDLE. These plans are chosen, too, more or less at random. There are a number of other plans, but they were just too multitudinous to present. These are merely samples which I would like to invite the committee's attention to.

Aide to General Twaddle: General, I have arranged with Mr. Clark to hand all the exhibits up later, unless there are some in chart form that the committee might want to see right away.

Mr. FULTON. As a general rule it would be better practice if these were submitted 24 hours, more or less, in advance so we can see what is in them; they couldn't possibly look at them while you are testifying.

General TWADDLE. We could have well done that had we known your desires in the matter.

Plans prior to the 1937-38 plan involved a very considerable degree of decentralization. Station lists were not included, corps area commanders being given great latitude in the matter of where units under their control would be mobilized. This was a natural consequence of the drastically reduced appropriations following the World War and extending through the depression. Funds were not available for the movement of units between corps areas; hence, mobilization plans, to be practiced in time of peace, had to provide for mobilization of the units concerned at or near their home stations. National Guard units, particularly, were compelled to concentrate for their annual training at State camps within their corps area. Corps area mobilization plans, therefore, generally provided for the mobilization of these units at the stations where they habitually trained. In most cases, permanent housing, with the exception of kitchens, mess halls, and latrines, did not exist at these State camps, nor was it contemplated that they would be provided. In the event of a general mobilization, tent shelter would be used on the assumption that units would shortly be moved elsewhere in conformity with one of the strategic plans.

Since the protective mobilization plan, 1937, called for a controlled mobilization having as its aim the creation of a balanced force of constantly increasing size, decentralization was no longer desirable. Among the things returned to control of the War Department was the selection of mobilization stations for the units involved, and in the detailed plan of 1938, stations for all units were specified for the first time. The fact that the selection of stations was centralized at that time in the War Department has been of inestimable value during the present mobilization, requiring, as it does, that a very considerable amount of new housing be constructed at the various training centers.

The protective mobilization plan, 1938, assigned training stations to the 18 National Guard divisions. In all cases except those of the Twenty-sixth and Twenty-eighth Divisions, the particular station was specified. In the case of the two divisions mentioned, the San Antonio area was specified. Alternate locations were provided in most cases, these alternate locations generally being the State camps

at which the division normally trained. A list of division training centers set up in the 1938 plan follows:

Division	Training center	Alternate training center
Twenty-sixth.....	San Antonio area, Texas.....	Camp Edwards, Mass.
Twenty-seventh.....	Fort Clark, Tex.....	Pine Camp, N. Y.
Twenty-eighth.....	San Antonio area, Texas.....	Indiantown Gap, Pa.
Twenty-ninth.....	Fort Eustis, Va.....	None.
Thirtieth.....	Fort Jackson, S. C.....	Do.
Thirty-first.....	Fort Benning, Ga.....	Georgia National Guard Res- ervation.
Thirty-second.....	Chickamauga Park, Tenn.....	Fort Custer, Mich.
Thirty-third.....	Fort Huachuca, Ariz.....	Camp Grant, Ill.
Thirty-fourth.....	Camp Beauregard, La.....	Camp Riley, Minn.
Thirty-fifth.....	Camp Robinson, Ark.....	None.
Thirty-sixth.....	Camp Hulen, Tex.....	Do.
Thirty-seventh.....	Fort Bliss, Tex.....	Camp Parry, Ohio.
Thirty-eighth.....	Camp Shelby, Miss.....	Fort Knox, Ky.
Fortieth.....	Camp San Luis Obispo, Calif.....	None.
Forty-first.....	Fort Lewis, Wash.....	Do.
Forty-third.....	Fort McClellan, Ala.....	Niantic, Conn.
Forty-fourth.....	Fort Jackson, S. C.....	Fort Dix, N. J.
Forty-fifth.....	Camp Wolters, Tex.....	None.
Twenty-fourth Cavalry.....	Fort Bliss, Tex.....	Do.

Generally speaking, the station list was unchanged in the 1940 plan. However, before that plan was put wholly into effect, it was found desirable to assign other stations to certain of these divisions since the War Department foresaw that a mobilization under peacetime conditions would require that some of the stations, originally assigned, be used for other purposes. These modifications to the plan were approved July 31, 1940, based on a study made by the General Staff. The stations at which the 18 National Guard divisions are now training are as follows:

Division:

Station:

Twenty-sixth.....	Camp Edwards, Mass.
Twenty-seventh.....	Fort McClellan, Ala.
Twenty-eighth.....	Indiantown Gap, Pa.
Twenty-ninth.....	Fort Meade, Md.
Thirtieth.....	Fort Jackson, S. C.
Thirty-first.....	Camp Blanding, Fla.
Thirty-second.....	Camp Livingston, La. (Beauregard area).
Thirty-third.....	Camp Forrest, Tenn.
Thirty-fourth.....	Camp Claiborne, La. (Beauregard area).
Thirty-fifth.....	Camp Robinson, Ark.
Thirty-sixth.....	Camp Bowie, Tex.
Thirty-seventh.....	Camp Shelby, Miss.
Thirty-eighth.....	Do.
Fortieth.....	Camp San Luis Obispo, Calif.
Forty-first.....	Fort Lewis, Wash.
Forty-third.....	Camp Blanding, Fla.
Forty-fourth.....	Fort Dix, N. J.
Forty-fifth.....	Camp Barkeley, Tex.

From the above, it can be seen that of the division training centers now in use by National Guard divisions, all but five appeared as division training centers in the 1938 plan. The exceptions are Fort Meade, Md.; Camp Blanding, Fla.; Camp Forrest, Tenn.; Camp Bowie, Tex.; and Camp Barkeley, Tex.

As is pointed out elsewhere in this statement, the protective mobilization plan was intended to create a force which might be engaged in active operations on short notice. Men procured under the Selective

Service Act would be retained in service until the emergency was over and would be replaced only as they became casualties. The Selective Service Act of 1940, however, provided that men procured thereunder would serve for 1 year only.

This required an upward revision of the loss-replacement system which the current plan provides. Replacement centers became replacement training centers instead and had to be expanded to a capacity capable of furnishing several times the number of loss replacements per year that had been planned for, inasmuch as men must now be replaced as their year's term of service expires. In some cases, stations that had been intended as division training centers had to be used instead as replacement training centers. Fort Eustis, where it had been intended to concentrate the Twenty-ninth Division (now at Fort Meade, Md.), and Camp Wolters, Tex., where it had been intended to concentrate the Forty-fifth Division (now at Camp Barkeley, Tex.) are examples. Both of these stations are now replacement training centers capable of turning out approximately 13,000 and 15,000 basically trained men, respectively, every 13 weeks. Likewise, the creation of a greatly expanded armored force required that certain stations, originally allotted to National Guard divisions, be used for the new armored divisions. Fort Benning, Ga., where the Thirty-first Division was scheduled to concentrate, is an example.

If I may digress a moment again, please. Since we have been speaking of camp sites I might invite the committee's attention to those used during the World War. Considerable data of interest concerning these camp sites are contained in a tabulation and as a part of the study on the organization and training of the Army during the World War, which I just gave to the committee a few moments ago.

From the above, it can be seen that, while certain details of the original plan have changed, the basic conception has not. The changes made have been in the nature of the expansion of the plan rather than alterations and it has been fortunate that the plan was sufficiently flexible to permit this.

Digressing again, if I may, sir, details of the mobilization plan of 1940 have been constantly revised to keep it abreast of changing conditions. I have here the troop basis of that plan as it now exists and which will govern the mobilization during the remainder of the current fiscal year 1941. This troop basis will be succeeded later on by the troop basis of the protective mobilization plan in 1942, which is now in the process of preparation by the interested divisions of the War Department General Staff.

This troop basis of the protective mobilization plan of 1941, together with tables of organization which are prepared for each type of unit that we have in the Army, along with the tables of basic allowances which indicate to a commander the number of the various items of equipment that he is supposed to have in his organization, also the amount of individual equipment that he is supposed to have for his various individuals, gives a complete set of working plans for a field force commander to completely organize and equip his unit.

(The documents referred to were marked "Exhibits Nos. 15 to 17" and are on file with the committee.)

General TWADDLE. The protective mobilization plan, 1940, was published in the spring of 1940, at which time the authorized strength

of the Regular Army was 227,000 men, established by Executive order of September 8, 1939. On May 4, 1940, this strength was increased to 242,000 men through action of the Chief of Staff using unexpended funds remaining in that fiscal year. The act of June 13, 1940 (Public, 611, 76th Cong.) further raised the strength of the Regular Army to 280,000 men; this act being followed by the act of June 26, 1940 (Public, 667, 76th Cong.) which authorized a new strength of 375,000 men. Finally, still in 1940, Public, 800, Seventy-sixth Congress, provided appropriations for an Army of 1,418,097 men including Regular Army 3-year enlisted men, National Guard, and selectees.

Senator BREWSTER. Do you recall the exact date of that last one?

General TWADDLE. No, sir; I do not recall the exact date. I believe, sir, about October 1, but I am not sure of that date. September 24 was the date.

No limit was placed on the number of 3-year enlisted men which could be procured within this total. Thus far in 1941 a further increase of 152,589 men in the Regular Army has been asked for in a bill now pending, this last increase to be made in enlisted men assigned to the Air Corps and Air Corps services. If passed, this bill will provide for an Army of 1,570,686 men.

The piecemeal nature of the above increases in the Regular Army, together with the passage of the Selective Service Act and the induction of the National Guard for a year's training, precluded further changes in the protective mobilization plan. Such changes, in fact, could no longer be considered as changes in the bases on which the protective mobilization plan was built but rather as changes resulting from the fact that the plan, although not apparent at first, had actually been put into operation in early 1940. However, the halting and uneven manner in which it was put into operation had much to do with the length of time it has taken for the plan to begin to function in the smooth manner visualized. When the plan and its predecessors were evolved, it was expected that, when it went into effect, the whole of the Nation's resources—as well as its available manpower—would be subject to mobilization and no effort would be spared toward the building of an army along the lines which the War Department believed to be sound. Likewise, it was assumed that, prior to a national emergency, it was unlikely that an appreciable mobilization, either in manpower or materials, could be expected.

While this latter assumption has been proved partially incorrect, it cannot be said that the fundamental operation of the plan has suffered appreciably thereby. While the plan was designed primarily to provide a mobilization to meet an actual and immediate threat to the safety of the Nation—a peacetime mobilization being considered in the nature of an unattainable ideal—as has been pointed out earlier, the plan was made with a degree of flexibility which has permitted its adaptation to the conditions governing the present mobilization. The creation of a peacetime Regular Army of the size which we now have and the operation of a Selective Service System before the outbreak of hostilities could scarcely be considered a likely possibility at the time the 1940 plan was being drawn up in late 1939 and early 1940. The War Department foresaw, however, early in 1940, that events were leading to a general peacetime mobilization and that the trend of world events might well lead to a national emergency wherein this peacetime mobilization would be not only for training but also for

insurance against a hostile threat. In other words, it was time actually to put the protective mobilization plan of 1940 into effect, adapting it to the new conditions which then existed.

The training objectives, which the War Department set for itself to meet these new conditions, may be quoted from the record of the hearing before the Military Affairs Committees of the House and Senate as follows:

The training objectives are two:

First, to train the force contemplated by the protective mobilization plan which involves about 1,200,000 men. We must train this force within the shortest practicable time with the means available. This force, we believe, should be a force in being, a tangible one, fully trained and fully equipped, ready to take the field on short notice in the event it is needed.

Second, to provide a trained Reserve.

With these objectives in mind, mobilization proceeded in accordance with the 1940 plan, modified where modification was necessary.

During 1940, the successive increases in the Regular Army were used to fill out the framework of the plan. Events in Europe indicated that the proportion of certain arms should be greater than that visualized when the plan was originally conceived. Furthermore, increased industrial expansion and change-over made it appear likely that items of supply hitherto considered to be unavailable for some months after mobilization began, could be procured much earlier. Chief among the arms to be expanded were the Air Corps and the armored force since it was now possible to provide for their expansion under the protective mobilization plan, instead of under one of the augmentation plans as would have been the case had the production of the necessary items of equipment not been speeded up. Likewise, the introduction into the plan of certain new types of units was considered wise as a result of experience abroad; hence such units as parachute battalions, balloon barrage squadrons, and aircraft warning companies have been added to the original plan. The acquisition of the new Atlantic bases was not foreseen when the plan was originally drawn up and the working plans for 1941 and 1942 had to be modified to take care of the forces necessary to garrison these bases.

Generally speaking, the above modifications were additions to, rather than changes in, the basic plan. This is indicated by the increase in manpower to be mobilized under the protective mobilization plan from 1,137,151 men in the 1940 plan to 1,418,097 men in the 1941 plan. As a result, the present mobilization, except in point of time, has gone forward essentially in the manner originally conceived in 1937. That the time schedule has not been followed necessarily results from the piecemeal manner in which the mobilization has been authorized; that is, first by small increases in the strength of the Regular Army, then by the decision to induct the National Guard into Federal service for 1 year's training, and finally by the passage of the Selective Service Act which likewise provides for 1 year's training of the personnel procured thereunder.

The conditions imposed on the War Department for the induction of the National Guard into Federal service and the induction of trainees under the Selective Service Act, have, of course, an effect both on the rate of mobilization and on the cost. Among the conditions was a policy that neither the National Guard nor selectees would be inducted into Federal service before the War Department

was assured that they could be adequately housed, hospitalized, and provided with necessary utilities such as water, sewerage, and heat. It should be borne in mind that the original mobilization plan contemplated no such conditions, based as it was on the assumption that a national crisis had arisen and that units in the initial protective force would be employed in a theater of operations shortly after mobilization began.

As has been previously pointed out, camps and stations were planned for the initial concentration of these units, but it was expected that within 30 days after mobilization began this force would move into a theater of operations leaving the camps they had vacated to be used by the successive units which would follow. Under this plan, manpower could be procured evenly and at a rate consistent with the rate of procurement of equipment.

The imposition of the conditions referred to above upon the expansion of the Army required, however, that housing and other facilities be provided for the whole of the manpower included in the protective mobilization plan. This meant that new camp sites must be procured and a vast construction program initiated. Generally speaking, the camp sites used are an expansion of the camp sites planned in the 1938 protective mobilization plan. Where sufficient expansion was not possible at old sites, new sites had to be procured. This has been particularly true in the case of replacement training centers—the reason therefor having been discussed in detail earlier in this statement. This policy was tempered somewhat by the desirability of concentrating as much manpower as possible in the southern portion of the United States where year-round outdoor training is practicable. Coupled with this was a definite requirement that a limited number of combat units be trained for cold weather operations.

Since men could not be called before housing and other facilities were available, the schedule for the procurement of manpower had to be modified somewhat. A new procurement schedule was prepared in the summer and fall of 1940 based on the construction schedule for the new camps. Delays in the construction program, due chiefly to abnormal weather conditions, strikes, and an epidemic of influenza forced numerous revisions of this schedule throughout late 1940 and early 1941. However, an induction schedule has existed from the first and mobilization has proceeded in accordance with the plan and at the maximum rate possible under the circumstances.

It is impossible to compare the rate of mobilization actually achieved with that which was provided in the protective mobilization plan. As has been pointed out, M-day—the day set in the plan on which mobilization is to begin—has never been announced. This day has been reached and passed but no one can say when it actually occurred. As a matter of fact M-day has no significance other than a basis for the computation of time in mobilization planning. The first National Guard units were ordered into Federal service in September 1940, and the first selectees were inducted in November of the same year. By December 1940 the total manpower in service equaled 537,844. To meet the goal—which the Army had set itself—of 1,418,097 men in service by June 30, 1941, required that 880,253 men be inducted during the first 6 months of 1941, an average monthly rate of 146,708. The original protective mobilization plan, 1940, required the induction of 675,151 men into service in a 4-months' period—an average monthly rate of

168,787. Indications are that the June 30, 1941, goal will be reached with the exception of approximately 70,000 men whose induction has been delayed into July 1941, for training reasons. If it is assumed that mobilization actually got under way on January 1, 1941—and this assumption is not unwarranted since a total of only 19,246 selectees had been taken into the service by that date—it can be seen that, in spite of initial delays, mobilization is proceeding generally along the lines laid down in the plan.

Digressing a moment, please. I have here a chart showing graphically how the Army has expanded and how the expansion is expected to be completed. I invite the attention of the committee to the curve showing the expansion provided under the protective mobilization plan as contemplated in the plan of 1940. This chart has been built on the assumption that M-day actually took place on January 1 of 1941, and the chart as a whole shows very clearly the comparison between the contemplated expansion under the protective mobilization plan and the actual expansion as it is now taking place.

(The chart referred to was marked "Exhibit No. 18" and is included in the appendix on p. 362.)

General TWADDLE. Considering all the factors involved, resulting from the changed conditions under which mobilization has had to proceed, the conclusion is inescapable that the Protective Mobilization Plan, as visualized in 1937 and as successively brought to its present form, is not only sound but is working. By means of it, an orderly mobilization is being accomplished and a balanced force, capable of performing the tasks required of it, is taking shape. Had the Protective Mobilization Plan, 1940, not existed, it is not unlikely that we would now have little more than a mob of men in training camps with the attainment of our objective—the creation of a fighting army—months in the future.

To digress again, if I may, I have brought with me a number of charts to which I would like to invite the committee's attention. They will, I am sure, give you a very complete picture of the Army that we are now creating. I will not take the time to go into the details of all of these charts, except to just give their titles.

- No. 1. Tactical Organization of United States Army (as a whole).
- No. 2. Organization of a Square Division, Infantry.
- No. 3. Organization of a Triangular Division.
- No. 4. Organization of an Armored Division.
- No. 5. Organization of a Cavalry Division.
- No. 6. Army Troops For a Type Army.
- No. 7. A Type Army Corps.
- No. 8. Tactical Organization of the Army of the United States Shown Geographically.
- No. 9. Reception Centers (29).
- No. 10. Replacement Training Centers (21—2 combined).
- No. 11. Antiaircraft Brigades (8 and location).
- No. 12. Corps Field Artillery Brigades (10 and location).
- No. 13. The Armored Force.
- No. 14. The National Guard (locations and units).
- No. 15. Hospital Facilities (all over the country).
- No. 16. Proposed Expansion Shown Geographically (to which I will refer later).

(The charts referred to were marked "Exhibit No. 19" and are on file with the committee.)

General TWADDLE. And we have created a fighting army in less than a year which has elapsed since the first units of the National

Guard were ordered into active service and the Selective Service Act was passed. By June 30, 1941, exclusive of strong overseas garrisons, we will have 27 divisions in being and at, or nearly at, their full fighting strength. We will likewise have 4 armored divisions—we had none a year ago. We will have 27 regiments of corps Field Artillery, and 15 regiments of corps and army Engineers.

Senator BREWSTER. What about the equipment for all these troops?

General TWADDLE. The equipment is coming off the line in very satisfactory shape at the present time and I might state that we have sufficient equipment on hand for training purposes. We have not sufficient equipment on hand to move all of our units into a theater of operations at the present time. Only a few of them could we move into a theater of operations with full organizational equipment.

Senator BREWSTER. Then they wouldn't be ready to fight?

General TWADDLE. None other than these task forces, as we call them. They would be ready to fight, assuming that their training is up to date, and we would like to have a little more time for training, to be truthful about it.

We will have some hundreds of other units of all arms and services—most of which were on paper only a year ago. We will, in fact, have an army—not trained, as yet, as well as it will be trained later; and not equipped, as yet, as well as it will be equipped later, it is true. It is, however, right now an army in fact and not in theory and it could fight tomorrow if it had to.

Mr. Chairman, I have some other data which I would like to present to the committee, if the committee would like to have it now, particularly in connection with the chart which I didn't refer to when I went over those charts, and then if I may I should like to go over the summary of the facts, summary of the events leading up to the selection of certain camp sites in which I believe the committee has particular interest.

(The document referred to was marked "Exhibit No. 20" and appears in full in the text on p. 197.)

The CHAIRMAN. Proceed.

General TWADDLE. Finally, I may tell you that plans have been going forward for months past for a further expansion of the Army, should that expansion be authorized by Congress. Should the Congress authorize it to go ahead over and above our 1,418,000 men we would recommend as the next increase up to a total of 2,800,000 men. That would materially increase the number of divisions, the number of supporting corps army, and G. H. Q. Reserve troops.

Chart No. 16, which is in the folder which I presented to the committee, shows diagrammatically how that expansion is visualized. Surveys are now being made for additional camp sites. Plans are being perfected for the induction and training of additional men and schedules are being prepared for the procurement of additional equipment. I have here a part of the protective mobilization plan of 1941 and the augmentation plan of 1941 in which you may be interested.

(The document referred to was marked "Exhibit No. 21" and is on file with the committee.)

General TWADDLE. This mobilization plan presents all of the units which we would contemplate providing the Army were raised to a

strength of 2,800,000. This plan was approved on November 23, 1940, and has now been available for planning purposes for 5 months, although the augmentation of the Army is well in the future and may never take place.

I have covered the subject of mobilization in a very general way, omitting necessarily much of the detail of which planning is the composition. If I may I would like to present these data which I have here in connection with the camp sites, first setting forth the type of the general specifications which the G-3 Division furnished the G-4 Division in the selection of suitable training sites. Merely specifications, I don't know whether the committee will be particularly interested in them, but at least I will leave them with you.

Senator BREWSTER. Do those show the date at which they were completed?

General TWADDLE. These general specifications, sir?

Senator BREWSTER. Yes.

General TWADDLE. Yes; I think the dates are all in those documents there.

Senator BALL. Do they show which camps you selected after you discovered you couldn't use the ones you had planned for in the '38 plan?

General TWADDLE. The data in that folder does not. I have the remaining data here, which I think I can present to you later on.

(The document referred to was marked "Exhibit No. 22" and is on file with the committee.)

General TWADDLE. In addition there are certain factors which we have considered in the location of all the Army camp sites but I would like to read these over, if you don't mind. [Reading Exhibit No. 20:]

1. The necessity of a location where climatic conditions would interfere as little as possible with training. In view of the emergency conditions which necessitated the whipping into shape of a large number of men in the shortest possible time, it was essential that most of the camps be located where outdoor training could be carried on nearly every day in the year. A certain amount of indoor training is practicable, but if weather conditions are such that troops cannot get outdoors every day, their training will suffer. The necessity for a certain amount of cold-weather localities. However, these cold-weather camps were in the nature of a necessary evil and they were held to a minimum.

2. The necessity of using existing Federal and State camps. Practically every post owned by the Federal Government and nearly all of the big State camps (in other words, all existing camps that were suitable) were used, most of them being very greatly expanded. Such use was obviously dictated by the necessity of keeping expenditures to the lowest practicable amount.

3. The necessity of placing units together so that fairly large military teams could be trained. The conditions of modern war are such that units which are not able to work together in a team are practically useless. From this viewpoint, it was necessary that entire divisions be stationed at one place and that, where practicable units of the arms and services be stationed with one or more of the divisions.

4. In line with the necessity for team training to be carried on at all times was the necessity for training of larger groups occasionally in maneuvers or large-scale field exercises. From this viewpoint, it was necessary to have units stationed so that they could be concentrated into corps and army groups without undue loss of time or the expenditure of unnecessarily large sums to concentrate them. In this connection it was necessary to consider the location of suitable maneuver areas, making maximum use of national forests or other Federal holdings.

Mr. Chairman, I would like now to go over the summary of the events which led up to the use of Fort Meade as a divisional training camp. [Reading from Exhibit No. 23:]

Fort George G. Meade was acquired between 1919 and 1921 and was used during the World War as a training site for a division (see table A). Since the World War the post has been continued as an active post with a substantial garrison. On June 30, 1938, the strength of the garrison at Fort George G. Meade was 104 officers, 2,312 enlisted men; total, 2,416.

About June 1940 consideration was given by the War Department for the employment of Fort George G. Meade, Md., as the permanent station of one of the triangular Infantry divisions which was to be activated. Investigations of available War Department records, accumulated over a period of years and based on accurate information, disclosed that Fort George G. Meade was generally suitable for the training of an Infantry division, except sufficient target range facilities for artillery and combat firing ranges for Infantry were not available. Further investigation disclosed that the acquisition of suitable target ranges and combat firing ranges immediately adjacent to the existing War Department facilities would be difficult, because of railroad and highway nets and because of the presence in the area of other Federal activities (Department of Agriculture and Biological Survey). Furthermore, acquisition of needed additions would be relatively expensive (see map, table B). For this reason, the Eighth Division, with horse-drawn artillery, was stationed at Fort Jackson, S. C., rather than Fort George G. Meade, because there was no artillery range available closer than Fort Hoyle, Md. This was not so serious in the case of a division with motorized artillery, so it was recommended that the Ninth Division, when activated with motorized artillery, be sent to Fort George G. Meade (see table C).

However, by June 25, 1940 (see tab D), it had been decided to turn Fort Hoyle over to the Chemical Warfare Service, so on July 5, 1940, the station list for the next increase of 54,000 men (see tab E) carried the Ninth Division at Fort Bragg, N. C., on account of the lack of range facilities at Fort George G. Meade.

About July 1940, when it seemed probable that the National Guard divisions would be called into active duty for a 1-year training period, it became apparent to the War Department that Camp Eustis, Va., would not be a suitable place for the 1 year of training of the Twenty-ninth Division, although this post had been listed under the War Department mobilization plans as the training center for the Twenty-ninth Division. The rejection of Fort Eustis was based on the fact that the conception in the mobilization plan had been that the Twenty-ninth Division would assemble at its greatly reduced maintenance strength (about 9,000 men) for a short period and then move to a theater of operations; whereas the 1940 plan envisaged a year of training for the division at approximately full strength (more than double the maintenance strength). Furthermore, recent expanded activities of the air forces of the United States Army had made it necessary to turn over to the Air Corps a part of the land (Mulberry Island) pertaining to Fort Eustis.

The War Department decided on July 31, 1940, that Fort George G. Meade would be utilized as a training center of the Twenty-ninth Division (see tab F), and that steps would be taken to secure target range facilities at some location sufficiently convenient to the post as to make satisfactory training possible. The commanding general, Third Corps Area, approved this action on August 5, 1940, (see tab 6). This search for additional firing range facilities was one of the factors which eventually led to the acquisition of an area near Bowling Green (Caroline County), Va.

Fort George G. Meade will eventually have a garrison in excess of 26,000 (see tab H). It now covers an area of about 10,000 acres, to which about 3,600 acres is being added.

(The summary referred to was marked "Exhibit No. 23" and is on file with the committee.)

General TWADDLE. It will be recalled we had the Twenty-ninth Division in the '39 plan stationed at Fort Eustis down here in Virginia.

Now the summary of events leading to use of Camp Blanding, Fla., as a division training center.

Senator BREWSTER. That doesn't appear in your former statement, does it?

General TWADDLE. Yes, sir.

Senator BREWSTER. That was in the '38 plan?

General TWADDLE. '38 plan; yes, sir. [Reading from Exhibit No. 24:]

Originally, Camp Foster, near Jacksonville, Fla., was the training site used for the field training of elements of the Florida National Guard, and other units of the Thirty-first Infantry Division.

Camp Foster was disposed of to the Navy Department on September 2, 1939 (see table A), and this necessitated the location of a new training area for units of the Florida National Guard and other units of the Thirty-first Division.

In 1939, a board of National Guard officers surveyed six sites in the State of Florida, and recommended to the commanding general, Fourth Corps Area, that Camp Blanding be secured (see tabs B and C).

The commanding general, Fourth Corps Area, shortly thereafter sent a board of Regular Army officers to investigate the six sites previously inspected by the board of National Guard officers, and certain other sites which appeared to the corps area commander to be suitable and procurable (see tabs B and C). This latter board recommended strongly on September 2, 1939, that the Blanding site be approved. In September 1939 the War Department approved Camp Blanding as a National Guard camp site (see tab D).

The State of Florida acquired Camp Blanding in November 1939 and began operations to make the camp suitable for the summer training of National Guard field units, including the construction of a camp sufficiently large to take care of approximately one brigade of Infantry.

Camp Blanding, Fla., was carried in the War Department mobilization plan as the training center for the Thirty-first Division from the time of its acquisition by the State to the present time (see table E). In fact the Thirty-first Division is at the present time in active service at Camp Blanding.

In the early summer of 1940 when it appeared possible that the National Guard would be called into active service for a year of training, at full strength; and that Regular Army units would remain at their stations for training; it became necessary to investigate the practicability of carrying out the War Department mobilization plan with respect to suitable stations for National Guard units. Due to a number of factors, it was further necessary to make certain changes in the original mobilization plan. With this in mind, Camp Blanding was investigated to determine its suitability as a training site for 1 year of the National Guard divisions at full strength for a year of training.

Three officers from the War Department (Brig. Gen. (now Maj. Gen.) F. M. Andrews, A. C. of S., G-3; Brig. Gen. (now Maj. Gen.) R. C. Moore, A. C. of S., G-4; and Maj. (now Lt. Col.) E. S. Ott, a member of the G-3 Division of the War Department General Staff) proceeded by air to Camp Blanding for an inspection of the area. These officers stopped at the headquarters, Fourth Corps Area, Atlanta, Ga., and had a conference with the commanding general, Fourth Corps Area, who recommended Camp Blanding as an extremely suitable site for the training of large units. The commanding general, Fourth Corps Area, detailed an officer (Maj. (now Lt. Col.) George H. Schumacher) to accompany the War Department group to Camp Blanding.

The investigation of this group of officers included a general map study of the area, a general air reconnaissance and a general ground reconnaissance. The air and ground reconnaissance was made about June 20, 1940; the map studies had been made previous to this time, and maps were restudied in connection with the ground and air surveys. A map of Camp Blanding is attached. (See tab J.)

In July 1940 steps were taken in the War Department to designate Camp Blanding as the training center for an additional National Guard division. Recommendation was made on July 30. (See tab E.)

The approval of this use of Blanding was made on July 31, 1940. (See table F.)

On August 3, 1940, the State of Florida agreed to its use by two divisions. (See tab G.)

On August 8, 1940, orders were issued for the necessary construction thereat for two divisions. (See tab H.)

Camp Blanding covers an area of over 127,000 acres. It will have a garrison of about 50,000 in June of 1941. (See tab I.)

On April 7, 1941, General Embick, former commander of the Fourth Corps Area, made a statement with reference to the selection of Camp Blanding and other posts which is pertinent to the issue. It is attached as tab B.

In this connection, selection of a new camp site is based, from the operations and training viewpoint, on a consideration of factors as follows:

1. The necessity of a location where climatic conditions would interfere as little as possible with training. In view of the emergency conditions which necessitated the whipping into shape of a large number of men in the shortest possible time, it was essential that most of the camps be located where outdoor training could be carried on nearly every day in the year. A certain amount of indoor training is practicable but if weather conditions are such that troops cannot get outdoors every day, their training will suffer. The necessity for a certain amount of cold weather training was recognized and some camps were established in cold weather localities. However, these cold weather camps were in the nature of a necessary evil and they were held to a minimum.

2. The necessity of using existing Federal and State camps. Practically every post owned by the Federal Government and nearly all of the big State camps (in other words all existing camps that were suitable) were used most of them being very greatly expanded. Such use was obviously dictated by the necessity of keeping expenditures to the lowest practicable amount.

3. The necessity of placing units together so that fairly large military teams could be trained. The conditions of modern war are such that units which are not able to work together in a team are practically useless. From this viewpoint, it was necessary that entire divisions be stationed at one place, and that, where practicable, units of the arms and services be stationed with one or more of the divisions.

4. In line with the necessity for team training to be carried on at all times was the necessity for training of larger groups occasionally in maneuvers or large scale field exercises. From this viewpoint it was necessary to have units stationed so that they could be concentrated into corps and army groups without undue loss of time or the expenditure of unnecessarily large sums to concentrate them. In this connection, it was necessary to consider the location of suitable maneuver areas, making maximum use of national forests or other Federal holdings.

5. The general area having been dictated by the factors discussed above, the exact locations where posts were not already available had to be chosen after a consideration of the following military requirements:

a. Sufficient area: Thirty thousand acres is, in general, the minimum area that will provide housing site, drill fields, ranges for artillery weapons, machine guns, pistols, mortars, antitank guns, bayonet and grenade courses. Level areas for the housing sites and some of the ranges.

b. Varied terrain for small tactical exercises, and observation for field artillery. A stream for constructing ponton bridges and exercises in crossing streams. Sufficient wooded areas to give tactical training in woods. Not too high above sea level.

c. Suitable soil for the maximum amount of outdoor training.

6. In addition to the training factors to be considered, the following had to be borne in mind:

a. Adequate communication, railroad and road.

b. Adequate utilities, including an ample water supply, sewage disposal facilities, electric power, and telephone connections.

c. The availability of an adequate supply of labor for construction.

d. Cost of land (lease or purchase) and availability of Government land.

e. The availability of a nearby center of population in order to provide for civil contacts and recreation for camp personnel and with commercial facilities for supplying a large number of men.

(The summary referred to was marked "Exhibit No. 24" and is on file with the committee.)

Senator BREWSTER. You stated that these modifications to the plan were approved July 30, 1940.

General TWADDLE. July 31.

Senator BREWSTER. That would be July 31, 1940, which would imply that that Thirty-first Division at Fort Benning, Ga., was continued until that time. It must be inaccurate.

General TWADDLE. From the time that Camp Blanding was approved as a camp site we had planned to put in there just as soon as that approval was made, one National Guard division, and later on,

as I will point out here, sir, we planned to put in an additional one. Now the dates apparently are a little confused here. Anyway, from the very time that we had decided to use Camp Blanding at all we had in our plans the location of a training center for one National Guard division there.

Senator BREWSTER. About how many did that then contain? Around fifteen to twenty thousand?

General TWADDLE. No, sir; the Square Division, National Guard, ultimately will go up to a strength of 1,314 for one division only.

Senator BREWSTER. What was the date of this?

General TWADDLE. I am sorry I haven't that date. June 18, 1940.

Incidentally General Embick's statement is included in this folder which is being presented to the committee. That concludes my statement with reference to Camp Blanding.

I should like next to present the events in connection with the selection of Camp Davis, N. C., as an antiaircraft training center, and Camp Stewart, Ga. [reading from Exhibit No. 25]:

Antiaircraft artillery was a development of the World War. The Chief of Coast Artillery was charged with furnishing personnel for this arm. Following the armistice and with the demobilization of the Army in general, antiaircraft artillery units in the continental United States were demobilized, save two or three regiments which were maintained at reduced strength. These few units went into the seacoast-defense forts where housing was available and where it was possible to conduct limited firing at targets towed in the air over water areas. The antiaircraft artillery remained in the harbor defenses through the lean years of the Army following the World War.

It has always been recognized that the maximum training results are obtained by simulating war conditions. The bulk of our antiaircraft artillery in war will be used to fire over land areas. Therefore, in training, land areas, where forward and flank spotters can be used in the observation and adjustment of fire, are highly desirable. Training in maneuver tactics, camouflage, and the tactical employment of antiaircraft artillery searchlights can best be accomplished on land firing areas. The development of the automatic antiaircraft artillery target stressed further the need for land ranges. The War Department had long recognized these needs, but due to lack of national interest in preparedness and attendant lack of appropriations, could not acquire them. The matter was kept alive during the years and, with the awakening of interest in military preparedness, was pressed to successful conclusion.

Among the factors considered in the selection of a site for antiaircraft artillery training and firing are:

Area: The area should be at least 20 miles square.

Location: Not too far removed from the region from which the personnel will be drawn for training.

Reasonably near areas vital to the defense of the Nation.

A climate suited to training throughout the year.

Accessible to a first-class road and a railroad.

Cost: Land must be available at low price or the cost of such a large tract will be prohibitive.

Density of population in the area and time required to remove population and industries.

Airfield and air-control communication facilities nearby.

Terrain: Should contain a secondary road net; sufficiently open to permit recovery of dropped targets and the safe landing of free targets.

Free of main highways, railroads, power lines, and commercial utilities.

Areas traversed by commercial air routes and areas used for training of military and naval pilots to be avoided.

Steps taken to acquire these sites may be briefed chronologically as follows:

July 1936: The Chief of Coast Artillery (specialist on this arm) initiated action to obtain an area about 26 miles square where all antiaircraft artillery (4 peace-strength regiments, 2,500 men at that time) could be assembled for field training and extensive firing in 1939.

November 1936: Lack of funds compelled suspension of the project. Area near Las Vegas, Nev., offered promise—scanty water supply reported.

November 1936: Action by Chief of Coast Artillery to find a suitable area in Florida made without expense to the Government, with the view to acquisition at some later date should funds be made available.

March 1937: Florida areas found only partially suitable. Studies filed for future use and for comparison with areas to be reconnoitered subsequently.

December 1937: War Department directed Chief of Coast Artillery to recommend suitable areas for antiaircraft-artillery firing centers to meet requirements of revised Protective Mobilization Plan, and in so doing to take every advantage of Government-controlled land.

January 1938: Chief of Coast Artillery submitted his study and recommended that all parts of the United States be reconnoitered to find where suitable areas existed.

March 1938: War Department directed the nine corps area commanders to make surveys and report on suitable sites so as to have selection made prior to the time mobilization might be ordered.

September 1938. Last of corps area reports reached the War Department. Each of these corps area reports was carefully studied by the War Department to determine which site would best meet the military requirements.

May 1939: The War Department approved a project for the acquisition of two antiaircraft firing ranges, contingent upon the project being approved and funds authorized by Congress. (There were five active Regular Army antiaircraft regiments in the continental United States at this time, two on the west coast, one each on the east and south, and one near Chicago.) Further study of the Carolina area was directed to find a site to meet the needs of units located in the Northeastern United States; this site was to be as far north as possible in the Fourth Corps Area.

October 1939: Fourth Corps Area Commander reported result of his detailed investigation. Area No. 6, near Hinesville, Ga., given first priority (now Camp Stewart). Area No. 3, 25 miles north of Wilmington, N. C., second priority (now Camp Davis). Fourteen other areas in Georgia and the Carolinas not classified as to priority.

June 1940: War Department approved site No. 6 near Hinesville, Ga. (now Camp Stewart).

July 1940: The Commanding General, Fourth Corps Area, submitted a report stating that the De Soto National Forest was not suitable for an antiaircraft firing center because of the configuration of the forest area. His report cited that this area was needed as a training area for troops at Camp Shelby, Miss. The War Department advised that the antiaircraft firing center planned for De Soto would be changed to the Savannah area as soon as a suitable tract of land in that area had been acquired.

August 1940: Secretary of War directed acquisition of approximately 5,000 acres in vicinity of Hinesville, Ga., by lease, as a part of an antiaircraft training center.

October 1940: Secretary of War directed acquisition of 360,000 acres, antiaircraft training and firing center, near Hinesville, Ga., from funds made available in Public Resolution No. 99, Seventy-sixth Congress, approved September 24, 1940.

November 1940: Secretary of War directed acquisition of about 3,700 acres of land near Wilmington, N. C., by lease, for an antiaircraft training center.

(The summary referred to was marked "Exhibit No. 25" and is on file with the committee.)

Senator WALLGREN. Have you the figures there, General, of the cost of acquiring this land and why these leases are concerned? I should think that would be important.¹

General TWADDLE. That doesn't come within the G-3 Division. If that information is needed I am sure G-4 or the Quartermaster General will have it.

Senator WALLGREN. That is part of our job.

General TWADDLE. We will transmit that information to responsible individuals and ask them to furnish it.

¹ In this connection, a War Department representative subsequently informed the committee, in a memorandum dated June 9, 1941, as follows:

Camp Stewart: There is appropriated \$2,690,000 of which approximately \$1,900,000 already is obligated in the acquisition of around 3,600 acres. The original appropriation was insufficient; therefore an additional \$2,895,500 has been requested by the War Department to continue the work. This will make a total of over \$5,000,000.

Camp Davis: The War Department is leasing Camp Davis at an annual rental of \$12,018.80, renewable up to 25 years.

The next station is Camp Hulen, Tex. [reading from Exhibit No. 26]:

Camp Hulen, Tex., is owned by the State of Texas. It is located about 1 mile from Palacios, Tex., and consists of a reservation of approximately 1,300 acres. This camp has, for several years, been used as a training site for the Thirty-sixth Division, and the State of Texas has installed facilities for about 9,000 men thereon.

The War Department mobilization plan has shown Camp Hulen as the training site for the Thirty-sixth Division for several years. It was realized that the training facilities at this camp would be inadequate for a war strength division and that the camp was unsuitable as the permanent station for a war-strength division. The mobilization plans contemplated, however, that National Guard divisions be concentrated at a reduced strength during the early days of mobilization and, since the Thirty-sixth Division already utilized this camp as a training site, it was considered suitable. The State of Texas offered no objection to the use of this camp for the training of a National Guard division.

On July 11, 1940, the War Department directed the commanding general of the Eighth Corps to make a detailed investigation of several camp sites in the southwest part of the United States. Camp Hulen was included. On July 16, 1940, the Eighth Corps Area commander, General Brees, submitted a report in which he stated that, in his opinion, Camp Hulen was unsuitable as the training area for a full-strength infantry division due to the nature of the terrain and the limited area available. Subsequent to this report, he recommended Camp Hulen as a suitable location for a Coast Artillery replacement training center. Camp Hulen borders on the Gulf of Mexico, which permits antiaircraft firing over a water area. Inasmuch as the terrain was found unsuitable for the training of an infantry division but was considered satisfactory for antiaircraft training, and the fact that existing facilities could be used, thus avoiding the cost of construction of an entirely new camp, it was decided in August 1940 to use Camp Hulen as a Coast Artillery antiaircraft firing center. The following units with authorized enlisted strengths as indicated herein are stationed at Camp Hulen:

1 Headquarters and Headquarters Battery, Coast Artillery brigade.....	68
5 Coast Artillery regiments (antiaircraft).....	8, 405
2 Coast Artillery battalions (antiaircraft) (National Guard).....	1, 468
1 station hospital.....	75
2 Ordnance companies.....	256
2 Quartermaster companies.....	268
Total.....	10, 540

(The summary referred to was marked "Exhibit No. 26" and is on file with the committee.)

General TWADDLE. The next is Fort Leonard Wood [reading from Exhibit No. 27]:

Fort Leonard Wood is a new camp site in south-central Missouri, located in the Midwest as a training center for approximately 35,000 troops and a maneuver area for all troops located in that region. This camp site was selected on the recommendation of a board of Army officers sent from Washington to select a camp site in Iowa, Kansas, Missouri, or Nebraska. The events that led up to the selection of this site are summarized below.

Public, No. 231, Seventy-sixth Congress, approved July 26, 1939, authorized the acquisition of approximately 40,000 acres of land in Wayne and Decatur Counties, Iowa, as a Seventh Corps Area training center. At the time this authorization was requested, it was contemplated that only about 10,000 troops would be concentrated in this area for intensive training for a few months, and the development of an adequate water supply for this small number of troops was considered to present no problem (statement of Colonel Herman, Seventh Corps Area engineer).

With the expansion of the Army, it was determined that 40,000 acres should be acquired in order to provide a suitable training area for the Sixth Division, an engineer replacement center, and three Artillery regiments, a total of approximately 35,000 men. Accordingly, funds were appropriated in Public Resolution No. 99, Seventy-sixth Congress, in the amount of \$660,000, to acquire this tract.

The Assistant Secretary of War under date of September 7, 1940, was directed to purchase the 40,000 acres in south-central Iowa. Shortly thereafter the Chief of Engineers raised a question as to the adequacy of water supply in this region, pointing out that water from deep wells was not potable and that streams

in the area became dry or had their flow reduced to zero at certain times of the year.

The Quartermaster General was then directed to make a survey of the Iowa site with respect to the water situation. His report indicated that water from deep wells could not be obtained and that surface water would have to be impounded. His engineer indicated that a dependable supply could be obtained by February 1, 1941, but that this would require pumping from the Grand River into a reservoir adjacent to the river, with a water line running to the camp site about 17 miles distant. The camp site would be approximately 300 feet higher than the intake at the Grand River, and the Quartermaster General estimated that the initial cost to provide water at the camp site would be approximately \$1,250,000.

Upon receipt of the preceding report, and in view of the necessity for an adequate training center in this general area, a board of officers was sent from Washington to locate a suitable site in Missouri, or, if necessary, to go into Iowa, Kansas, or Nebraska in search for an appropriate tract. The board was met at Rolla, Mo., by three officers from the Seventh Corps Area who were familiar with the previous investigations in this area. In surveying the Mark Twain National Forest area, it considered the following factors:

- (a) The site to be capable of accommodating a strength of at least 30,000.
- (b) The site to be as near as practicable to a center of population in order to provide recreational and commercial facilities.
- (c) The feasibility of using Government-owned land.
- (d) The procurement of a suitable training area of 40,000 to 60,000 acres adjacent to a suitable cantonment site. The training area to have a dimension of 10 miles on one side. Fairly level ground to be available for division review field, drill fields, bayonet and grenade courses, motor-vehicle drivers' instruction field, and small-arm target ranges within 30 minutes' marching distance of the cantonment area.
- (e) The area to contain varied terrain to provide for training in maneuvers and tactical exercises, laying field wire, an area for building bridges (river or lake), and observation points for Field Artillery firing.

The board found the present site of Fort Wood to offer excellent prospects with regard to all of the factors desired, except that it was somewhat isolated. However, it was within approximately 100 miles of three cities, St. Louis, Springfield, and Jefferson City, and was within 32 miles of Rolla, a university town of 5,000, with some facilities, and was located in a region where several smaller towns were equipped to cater to transient visitors. It was not as isolated as the former site in southern Iowa had been.

There were no rail facilities within several miles of the site, but it was pointed out that a great deal of the material for construction would come in by truck, even though a railroad were available, so this was not considered a decisive factor. The assistant engineer of the St. Louis and San Francisco Railroad met with the board and stated that a railroad line could be put in within 4 months, at a cost of approximately \$535,000. In view of the savings that would be made in land acquisition and the installation of water-sewage facilities, the factor of rail-spur cost was not considered decisive.

The board then conferred regarding numerous other sites, with officers or civilians who were familiar with them, and rejected all on the grounds of high cost and muddy soil in the case of farm lands, or lack of water or isolation in other cases.

The following specific advantages of the Missouri site were also taken into consideration:

- (a) Approximately 20 percent of the area is Government-owned.
- (b) The Mark Twain National Forest of about 411,000 acres provides excellent terrain for large-scale maneuvers and for further expansion of the reservation.
- (c) All types of terrain and materials required for engineer training are available.
- (d) The soil, which is gravelly loam, permits cross-country movements practically the entire year.
- (e) A minimum of social and economic disturbance will result because of the relatively small number of inhabitants in the area.
- (f) Unusual outdoor recreational facilities, including fishing, hunting, hiking, and cave exploration, are available.

On November 6, 1940, the recommendation of the above-mentioned board was approved and the Quartermaster General was directed to acquire approximately 64,000 acres of land in the Mark Twain National Forest for use as the Seventh Corps Area training center. It was later named Fort Leonard Wood.

On April 12, 1941, title to approximately 20,000 acres of this total tract had been acquired by the Government. Funds for the acquisition of the remainder of the land are available, and every effort is being made to hasten acquisition of title to the entire tract.

It is planned that on June 30, 1941, the garrison at Fort Leonard Wood will consist of the following units, with authorized enlisted strength as indicated:

1 infantry division.....	14, 531
2 engineer battalions.....	1, 535
Engineer replacement training center.....	10, 521
2 engineer companies.....	268
1 headquarters and headquarters battery, Field Artillery brigade.....	89
1 field artillery regiment (155-millimeter gun).....	1, 291
2 field artillery regiments (155-millimeter howitzers).....	3, 006
2 hospitals.....	400
3 headquarters and headquarters detachments, quartermaster battalions..	39
9 quartermaster companies.....	1, 464
1 signal company.....	243
Total.....	33, 387

(The summary referred to was marked "Exhibit No. 27" and is on file with the committee.)

The CHAIRMAN. General, it is necessary that this committee surrender this room at 4 o'clock for another committee meeting. We are going to take a recess until 10:30 tomorrow morning, when we will continue with your statement and questioning.

The committee will adjourn for lunch as soon as it is convenient tomorrow, and after lunch we will proceed to Fort Meade to make an inspection of that camp. Coal at the present time is the most important national-defense bottleneck now. This committee has power to find out the reason for any obstruction to national defense. We understand that operators, both North and South, and labor, are unable to get together. If coal is not being taken from the ground by Friday morning this committee will summon the representative of all the operators and John L. Lewis and proceed to find out why we can't have coal in this emergency. If it is necessary to take them for a bus ride to get them together we will do it in order to get coal.

The committee stands adjourned.

(Whereupon, at 4 p. m., the committee adjourned until 10:30 Wednesday, April 23, 1941.)

INVESTIGATION OF NATIONAL DEFENSE PROGRAM

WEDNESDAY, APRIL 23, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE INVESTIGATING
THE NATIONAL DEFENSE PROGRAM
Washington, D. C.

The committee met at 10:35 a. m., pursuant to adjournment on Tuesday, April 22, 1941, in room 318, Senate Office Building, Senator Harry S. Truman presiding.

Present: Senators Harry S. Truman, (chairman); Joseph H. Ball, and Ralph O. Brewster.

Present also: Hugh A. Fulton, chief counsel, and Charles P. Clark, associate chief counsel.

The CHAIRMAN. The committee will be in order.

I have a telegram under today's date, addressed to Messrs. L. T. Putman, Southern Operators' Wage Conference, Commodore Hotel, New York City; Charles O'Neill, Northern coal operators, Biltmore Hotel, New York City; and John L. Lewis, Hotel Commodore, New York City; which will go into the record.

The Committee of the Senate to Investigate the Defense Program and the practices of management and labor with respect thereto has been informed that, unless supplies of coal are replenished at once through the resumption of mining operations, steel mills, shipyards, and other key industries vital to production for defense will have to be shut down with a consequent dislocation of the entire program for which the American people are making so many sacrifices and on which the future of the Nation may depend.

The President of the United States has stated that it is imperative that mining operations be resumed at once and has publicly recommended and urged that the miners and operators already in agreement as to wages resume coal production at the wages they have agreed upon, and that those who have not yet reached an agreement resume coal production with the understanding that the agreement as to wages ultimately reached between them be made retroactive to the date of resuming work.

The committee is in entire agreement with the President's proposal. It believes that the paramount interest of both labor and the coal operators lies in the continuation without interruption of the great program of preparing an adequate defense to which the Nation has dedicated itself.

Under these circumstances, which labor and the coal operators alike must recognize, the committee assumes that coal production will be resumed at once. In the event that it is not, the committee will commence an investigation to ascertain what reasons exist which prevent consideration from being given to the necessities of the Nation and the paramount interest of the public.

The committee therefore requests that in the event that mining operations are not resumed by Friday, April 25, you appear before the committee on Friday, April 25, at room 318 of the Senate Office Building at 10:30 in the morning.

HARRY S. TRUMAN,
Chairman of the Senate Committee Investigating the Defense Program.

(The telegram referred to was marked "Exhibit No. 28" and appears in full above.)

The CHAIRMAN. The New York Times and New York Herald Tribune yesterday gave the impression that General Marshall had made the statement that we had an Army fully equipped and ready to fight. I don't think the general intended to make any such impression. On a direct question by the chairman he stated that the Army was not yet fully equipped but was rapidly being equipped. I don't want the country to get the impression that we have an Army of 1,200,000 men ready to go into the field and fight right now, because we haven't. I don't think the general intended to make that impression.

Senator BREWSTER. Wasn't that based on the conclusion of General Twaddle's statement? Do you recall?

The CHAIRMAN. It was credited to General Marshall in the papers. The general also in his testimony yesterday referred to the fact that the Army school system had to be quite extensive in contrast to that of the Navy, because we had a very small Army, and we had to make up in theory through the use of the schools what we lacked in combat troops.¹ With reference to the use of the German panzer division and forces in support of the attack which has been so successful, what theoretical instruction has been given in our schools along these lines? General Twaddle, can you give us some idea of what that theoretical instruction was in regard to those streamlined divisions?

**TESTIMONY OF BRIG. GEN. HARRY L. TWADDLE, CHIEF,
OPERATIONS AND TRAINING DIVISION, WAR DEPARTMENT
GENERAL STAFF—Resumed**

INSTRUCTION IN MECHANIZED WARFARE GIVEN UNITED STATES ARMY

General TWADDLE. The development of the principles and doctrines governing the employment of mechanized forces was begun at the Command and General Staff School at Fort Leavenworth in the year 1932. Since that time there has been considerable advancement in that development, and the principles of employment have been included in the course at Leavenworth. Those principles were also practically applied to the Seventh Mechanized Brigade, which was then a going concern at Fort Knox. Those same principles apply today and are being utilized in the training of our armored divisions.

Mr. Chairman, there is present here in the room Colonel Wilson, who was instructor at Leavenworth at that time and personally took part in the instruction of the principles and doctrines of the mechanized forces, and with your permission, sir, I would suggest that he be permitted to make a statement briefly at this time.

The CHAIRMAN. Go ahead, Colonel Wilson. Make it brief, Colonel, if you can.

**TESTIMONY OF LT. COL. ARTHUR R. WILSON, GENERAL STAFF
CORPS, UNITED STATES ARMY**

Colonel WILSON. The coordination, as General Marshall said yesterday,² of the air forces and the mechanized or armored forces was something new in warfare up until the time the Germans invaded Poland. However, I think I can say frankly that all of the tactics

¹ Supra, pp. 160-161.

² Supra, p. 167 et. seq.

that were used by the Germans in their coordination of air and ground was taught in our Command and General Staff School at Fort Leavenworth from 1932 on. The Command and General Staff School instructors visualized exactly what would happen in that kind of an attack.

Now, it is a fact that the Air Corps did not think we should use the Air Corps planes as artillery on the battlefield in support of ground troops and particularly mechanized troops, and their conception of that, of course, was influenced by the fact that they had a limited production of airplanes and they had figured that they could not waste and lose airplanes in close support of ground troops when there would probably be more vital objects far in the rear of the front line on which the Air Corps could be used.

Now that we foresee a greater production of planes, of course, that entire conception of the Air Corps is changed, but way back in the years 1932 and 1933, and on, the Army in its instruction did visualize the use of air forces in the close support of ground troops. The Command and General Staff School was, at that time, under the command of Gen. Herbert Brees. The assistant commandant, Col. J. A. McAndrew, insisted that we give that kind of instruction. The Germans, of course, in their attack of the British aircraft carrier *Illustrious*, gave a good example; they lost about two-thirds of the planes that they used in the attack, but the objective was so vital and the means that they had, they were willing to gamble with; if they lost two-thirds of the planes, what was that in comparison with the destruction of the objective?

The CHAIRMAN. Isn't that the plan they are following now in this attack, that they are using all the force they have, regardless of how many casualties or anything else they have, in order to win, and they have enough men and planes behind that to risk the whole thing, no matter how many casualties they have?

Colonel WILSON. That is right. Not only was our instruction carried out at Leavenworth, but it was carried out in the little old mechanized brigade we had at Fort Knox, which started with General Van Voorhis, and was carried on by General Chaffee. Colonel Hasbrouck here was a member of that force in the years preceding the present European war. One difference between the German Army in being and the American Army in theory and paper was equipment.

Senator BREWSTER. You have the responsibility for defense of the coast, do you not?

Colonel WILSON. You mean the War Department?

Senator BREWSTER. Yes, sir.

Colonel WILSON. Yes, sir.

Senator BREWSTER. And has there been any development—speaking now about the use of the aircraft—that would indicate still that the navy of any nation will hesitate to tackle land-based aircraft?

Colonel WILSON. I think General Twaddle could answer that question better.

General TWADDLE. I am sorry, I am not prepared to answer that question, sir.

The CHAIRMAN. I have another statement to make here. I want to bring it to the attention of the Army and the Navy and all the rest of the Government departments that we are expecting only those

officers to appear before this committee who are expected to testify and those who are necessary to help that officer out on his testimony; we don't want in any way to hamper the workings of the War Department by bringing more people up here than are absolutely necessary. You are perfectly welcome, you understand, but we are not forcing anybody to come but the officers who testify and those who are necessary to help them with their testimony.

Colonel WILSON. Senator Brewster, in connection with your question, we could have, later on, an officer from the War Plans Division appear before the committee and go into that in detail if you so desire, but that particular subject happens to be one that is in our War Plans Division and there is not a witness here now who is particularly qualified to testify on it.

Senator BREWSTER. We will see about that as it goes on, then.

The CHAIRMAN. Proceed, General Twaddle.

General TWADDLE. I have a very brief statement to submit covering the events leading up to the present use of Indiantown Gap, Pa., which is now being used as a military reservation for the Twenty-eighth Division. There are some supporting documents in connection with that statement in which the committee might be interested.

(The statement referred to was marked "Exhibit No. 29" and is on file with the committee.)

General TWADDLE. One other document I would like to present to the committee merely for their information is the station list of ground units of the Army that we expect to have by June 30, 1941. It does not include the principal Air Corps units or elements of the War Department overhead or Corps Area service command. Mr. Chairman, that concludes my statement.

(The list referred to was marked "Exhibit No. 30" and is on file with the committee.)

The CHAIRMAN. Mr. Fulton has some questions which he desires to ask.

Mr. FULTON. General Twaddle, I understand you are the Acting Assistant Chief of Staff of G-3, is that right?

General TWADDLE. Yes, sir; that is right.

FUNCTION OF G-3 OF THE WAR DEPARTMENT GENERAL STAFF IN THE SELECTION OF CAMP SITES¹

Mr. FULTON. Would you explain for the committee the functions of G-3 as distinguished from G-4 and the Quartermaster General's Corps and the Engineer Corps with respect to the problem of camps particularly?

General TWADDLE. G-3 is primarily interested in camps from the viewpoint of training alone. We are interested that the area is large enough, that it has sufficient varied terrain to permit us to train a division, for example. Other than that, we have no other interest.

Mr. FULTON. What is the function of G-4?

General TWADDLE. I would prefer that G-4 answer that question. I might say, though, sir, that G-3 and G-4 work very closely in the selection of these sites. G-4 is more interested in the utilities, the

¹ See testimony of Col. Stephen J. Chamberlin on the activities of G-4 in the selection of camp sites, *infra* p. 237 et seq.

camp layout, whether or not there is suitable water supply, whether or not the transportation facilities are readily available, such as roads and railroads, and the like of that.

Mr. FULTON. Which of the two in the first instance selects the site?

General TWADDLE. Those sites with which we were concerned during 1940 of course were existing sites. We had to use those to the maximum and we had very little choice, except where we foresaw the need of additional land adjacent to the reservations; in those instances a representative of the G-3 and the G-4 Division got together and talked this over and decided whether or not certain pieces of land would be recommended for acquisition.

Mr. FULTON. For example, Camp Blanding was not an existing site except to the extent that it had been used for a small National Guard force. Would it be G-3 or G-4 which would determine that a camp should be put at Camp Blanding?

General TWADDLE. Under those conditions there, G-3 influenced the selection of Camp Blanding very materially. At that time here is what we were up against. We had planned to put two National Guard divisions into the Fort Benning reservation where there was an acreage of something like 97,000. Later on we organized the Fourth Division and put it into Fort Benning, which put one of the National Guard divisions out. Still later on we had to organize one of the armored divisions. Benning was the logical place for the Second Armored Division because some of the tank elements that we wanted to put into that division were located at Benning and because of varied terrain there on this reservation it was thought advisable to utilize it for the training of an armored division. That threw two of our National Guard divisions out of suitable reservations at that time so this reservation at Blanding which had been acquired by the State with the approval of the War Department—I have forgotten the acreage but I think around 27,000—we saw the opportunity there of putting in one of these divisions that we could not station at Fort Benning, and still later on we examined the reservation at Blanding, as I stated yesterday, with a view of putting in the Second Division. General Andrews and Colonel Ott and representatives of the Fourth Corps Area, went down there at that time and concluded and made a recommendation to the War Department that we put the Second National Guard Division in Blanding. Also a representative of G-4 was present.

Mr. FULTON. Then, as I understand it, G-3 having originally planned to use Fort Benning, because of circumstances which arose that made that unsuitable for National Guard or rather more suitable for other purposes, chose Camp Blanding as the site for two divisions?

General TWADDLE. Well, it was necessary that we reach out somewhere and find the places to put these other two divisions, because we could not use Fort Benning under the circumstances.

Mr. FULTON. It would be G-3, then, rather than G-4 which would determine to take Camp Blanding as the site for those other two divisions?

General TWADDLE. If it met the requirements of the G-3 for training; yes, sir.

Mr. FULTON. And would G-3 have made any attempt to ascertain the construction difficulties, if any, that would be encountered in an area such as Camp Blanding?

General TWADDLE. No, sir; we would not. That is entirely G-4's and the Quartermaster General's problem. So far as the physical layout of buildings, G-3's interest in it principally is that it does not interfere with the ground which we must use for training. For example, if we had a reservation selected and the construction people decided to put the buildings in the middle of the reservation, we would object, and object strongly, because of interference with ground we needed for training.

Mr. FULTON. But with those exceptions, G-3 would really have no function to perform with respect to ascertaining construction difficulties?

General TWADDLE. That is correct, sir.

Mr. FULTON. That being so, would G-4 have a veto power in order to make sure that it had a proper situation from the standpoint of utilities and construction?

General TWADDLE. If a camp were recommended by G-3, and G-4 after examination of that camp found construction difficulties or lack of water, for example, that ran into excessive cost, they have a power of veto and could bring the question up and it would be hashed out and either the site would be given up or adjustments would be made. They have that veto power where they can foresee the possible high costs that we might run into.

Mr. FULTON. And so in every case G-4 is acquainted with the question before the site is finally determined by the staff?

General TWADDLE. Yes, sir.

Mr. FULTON. Would the Quartermaster General's Corps or the Engineer Corps be consulted before the site is selected?

General TWADDLE. The Quartermaster General and construction people do not contact directly the G-3 division. Their dealings are almost entirely, so far as the construction of camps is concerned, with the G-4 division, so I am not able to answer your question directly.

Mr. FULTON. So far as G-3, one might or might not be contacted—that is the Quartermaster General's Corps?

General TWADDLE. Yes.

Mr. FULTON. What would be the relationship of the corps area commander to the selection of a site such as Camp Blanding?

General TWADDLE. The War Department would not make a final decision as to the use of Camp Blanding, for example, without the recommendation of the corps area commander, and in the case of Camp Blanding the corps area commander did make such a recommendation.

Mr. FULTON. And what would be the particular function, military, or from a construction standpoint, or what?

General TWADDLE. Both, I think, sir, because he is responsible—well, he was at that time responsible—for the camp layout, I believe. I may be wrong about that, but at any rate he was interested in the lay-out of the camp and the training facilities.

Mr. FULTON. And he would also be interested in the military angle or whether the camp was a proper place, or would G-3 itself determine that?

General TWADDLE. The corps area commander is vitally interested in the facilities which are available for training.

Mr. FULTON. I understood from General Marshall yesterday that during the World War the Army reached a total of more than 4,000,000

men partly in the United States and partly abroad, and from reading reports with respect to World War camps I note that there were camps at that time to take care of approximately 2,000,000 men. Is that in accord with your understanding?

General TWADDLE. That is about right; yes, sir.

Mr. FULTON. And do you know the average area of the camps that were used or, in general, how the area of those camps compared with the areas of those we are using today?

General TWADDLE. The areas of the camps that were used during the World War were considerably less, on the average. I have an average figure here of 15,685 acres as the average of our World War cantonments, but it must be remembered that the divisions were hurriedly gotten together and shipped overseas just as soon as they were organized and the training of the divisions actually took place in France, and the artillery fired elsewhere at artillery firing centers and joined the division in France where a combined training was carried on to completion before the unit went into the line.

The CHAIRMAN. There was an exception in one division that I know of; that was the Thirty-fifth. We fired at Fort Sill.

General TWADDLE. I think practically all the Field Artillery fired at Field Artillery centers.

Mr. FULTON. And Fort Sill was one of the largest reservations during the World War, was it not, much larger than the average?

General TWADDLE. Camp Doniphan was a part of Fort Sill at that time and it was one of our largest reservations, if I recall, around 60,000 acres.

Mr. FULTON. And a number of the other reservations were far in excess of 15,000 acres average, were they not?

General TWADDLE. Some of them were.

At Fort Doniphan, which is part of Fort Sill, the total acreage was 67,713; Beauregard, 21,600; and Fort McClellan was a little bit larger than the average, 18,000; Camp Wheeler, 21,480; Camp Zachary Taylor, 23,621.

The CHAIRMAN. Camp Taylor was a field artillery training center entirely, wasn't it, during the World War?

General TWADDLE. Yes, sir.

Senator BREWSTER. Do you remember how many men they had there?

General TWADDLE. At Camp Zachary Taylor, sir?

Senator BREWSTER. Yes.

General TWADDLE. 38,672 was the maximum population of Camp Zachary Taylor.

Mr. FULTON. How does the area of the World War camps compare with the area of the present camps?

General TWADDLE. Much smaller. We would prefer now to have 60,000 acres.

Mr. FULTON. And what is the average that you do have?

General TWADDLE. I haven't that figure available, but I imagine that it is about 25,000 to 30,000.

Mr. FULTON. So that many of the World War camps, or at least a number of them, would conform in acreage to the acreage that you actually have on hand at this time?

General TWADDLE. That is so, and the major portion of those are being used at the present time.

Mr. FULTON. In the World War did the Army expand the existing posts that it had, or did it in large part acquire new camp area?

General TWADDLE. Both, sir. It expanded certain camps and acquired new ones.

Mr. FULTON. And after the war was over, did the Army preserve the camps that it acquired new or did it abandon them?

General TWADDLE. A great many of these camps were either sold or turned over to other departments of the Government.

Mr. FULTON. And were the buildings, and so on, removed for salvage value?

General TWADDLE. For a long time those buildings were used by Regular troops garrisoned at the various stations, but for the most part practically all of the World War cantonment buildings have disappeared.

Mr. FULTON. And did the Army go back at the time of the war to posts that were very much smaller than the ones that they had found advisable during the World War?

General TWADDLE. Yes, sir; that is true.

Mr. FULTON. I believe General Marshall said that there were something like 150 different garrisons.

General TWADDLE. There are over 100 garrisons now being occupied by troops.

Mr. FULTON. And some of those at places like, say Governors Island in New York, were on a very few acres.

General TWADDLE. Very small acreage. We have small units, isolated, at Fort Lincoln, N. Dak.; Fort Missoula, Mont.; Fort Wright, Wash.; Fort Ontario, N. Y.—very small garrisons, one battalion of infantry or a smaller unit, which meant that our units were scattered throughout all the continental limits of the United States. It would be very difficult to assemble them for training purposes, and costly, too.

Mr. FULTON. All of which, I take it, would be, in the opinion of the Staff, somewhat of a disadvantage.

General TWADDLE. A very great disadvantage so far as training in the larger units is concerned.

Mr. FULTON. And yet at a place like Governors Island there were constructed permanent brick quarters, as I understand it, having passed them a number of times during this period since the war.

General TWADDLE. I am not prepared to answer that question, Mr. Fulton, because I am not thoroughly conversant with all the permanent construction that has been put in.

Mr. FULTON. Well, the question I had in mind was why would the Army put permanent construction at posts where they couldn't fire a rifle, instead of these large area camps which we had during the World War?

General TWADDLE. Well, in the first place, so far as Governors Island is concerned, we will have to have troops there all the time. There is no question about that.

Mr. FULTON. For what purpose?

General TWADDLE. For the protection of the metropolitan area. As a matter of fact, we have right now at Governors Island what we call a zone of the interior military police battalion, which probably will never be moved from the metropolitan area of New York. It is not a field force unit. It is a zone of the interior unit.

Mr. FULTON. Is Governors Island considered a better place for a protective unit of that kind than the surrounding camps that are on

the mainland and where you could reach New York without taking a ferryboat?

General TWADDLE. Again we come back to the use of existing facilities and Government-owned land. Whether or not a unit could get to a certain place by being located elsewhere I am not prepared to state. Perhaps it would take some time for it to get to the mainland in the event that it is needed. There is a ferry that runs over to Governors Island.

Mr. FULTON. And if the ferry should happen to be disabled in any way, it couldn't get there at all, could it?

General TWADDLE. That is right, unless we could get a Government-owned coast artillery harbor defense boat there quickly to make the move, or a boat from the port of embarkation.

Mr. FULTON. Is a post like that considered carefully from the standpoint of whether it presents any utility that you couldn't get better from a larger post, which would have facilities available for reaching New York quickly?

General TWADDLE. I don't believe that consideration has been given to another post in the vicinity of New York; not to my knowledge.

Mr. FULTON. But the point I was really raising is why should we put permanent construction at posts of that character which have no great utility, as distinct from our larger posts which are something that we could enlarge during an emergency period and find that we would have training facilities available?

General TWADDLE. As I have stated before, the War Department has always been interested in getting all of their troops concentrated in large camps in order to conduct the training of large units.

Mr. FULTON. So I take it the War Department would have preferred to have abandoned a post such as Governors Island.

General TWADDLE. We would have preferred to abandon certain small posts, which have forced us to scatter our smaller units throughout the continental limits of the United States. As to the actual abandonment of Governors Island, I won't say that we should abandon it, because as I have said before, we have got to have troops there in the metropolitan area of New York. It is also headquarters for the First Army at the present time.

Mr. FULTON. Couldn't those headquarters more properly be located in posts where you have several thousands of acres for training facilities and where you could have a number of men gathered together at one time?

General TWADDLE. That is true. They could be located there. There is no doubt about that. And if we go to a theater of operations, the First Army headquarters will undoubtedly leave and go to the theater of operations with the troops.

Mr. FULTON. Were there recommendations to Congress that these small posts be abandoned and that the large posts be built up for use in case of emergency?

General TWADDLE. I believe that some recommendations were made, but I haven't the supporting data on it. That subject has been one of discussion over a great many years, and I might say rather frankly that there has been political pressure which has prevented us from abandoning a great many of these small posts and getting rid of these small garrisons and getting our troops together so that we could work with them and could train them.

Mr. FULTON. Is it the opinion of the Army that it is cheaper and easier to enlarge an existing post of some size, with good acreage around it, than it is to start an entirely new one, such as Camp Blanding?

General TWADDLE. I think there is no doubt about that, because you can extend the existing utilities. It would be much cheaper, I am sure.

Mr. FULTON. And also, you would by the very use of the post know its advantages and disadvantages.

General TWADDLE. Yes.

Mr. FULTON. That is, where it would be best to build.

General TWADDLE. That is correct.

Mr. FULTON. You would know whether the drainage was good or bad, whether the water supply was sufficient, and whether sewage problems would be difficult or easy.

General TWADDLE. Yes.

Mr. FULTON. And in view of that, was it not true that in the World War we found that it was an expensive proposition to build the new camps in new areas as distinct from enlarging those few which could be enlarged?

General TWADDLE. It cost considerable money. Just how much, I don't know.

Mr. FULTON. Has the Army any program, or is it working on the question of trying to abandon these small, out-of-date Indian forts, and so on, and get into the larger area camps?

General TWADDLE. We have it in mind all of the time. I think that within the past year there have been three posts which have been abandoned and turned over to other departments of the Government. One was Fort Lincoln, N. Dak., turned over to the Immigration Service; Fort Howard, in Maryland, was turned over to the Veterans' Administration; and Fort Washington, near the District of Columbia, was turned over to the Park Commission.

Mr. FULTON. Could you estimate for us how many of the 150 different posts you think should be abandoned or should have been abandoned sometime ago?

General TWADDLE. There are very few more that we would like to abandon. I haven't a list of them with me.

Mr. FULTON. Then you wouldn't apply your 25,000-acre estimate to those to determine whether they should be abandoned or not?

General TWADDLE. No, sir; we would not. A great many of those stations are used for reception centers for the reception of selective-service men and the processing of them and shipping them out to units, and hospitals, and ordnance establishments, and the like of that.

Mr. FULTON. Would you tell us what a reception center at present is and how it operates?

General TWADDLE. Well, a reception center is designed primarily for the reception of selective-service men as they are sent to the Army from the State and local boards. The men are there processed and stay there about 4 or 5 days and are shipped on to either an enlisted replacement training center or directly to a unit.

Mr. FULTON. Wouldn't it be better to have those men in the temporary camp during emergency periods than it would to have those small posts made permanent posts and have to make completely new ones?

General TWADDLE. You must remember this, that we must have a certain amount of distribution for these reception centers. We can't ship these men long distances to reception centers prior to their processing, because some may be rejected and have to be sent home. Then we run into additional transportation costs.

Mr. FULTON. But if they are there only 4 or 5 days, wouldn't it be better to have temporary facilities there rather than at the place for the permanent-year training camps?

General TWADDLE. We have tried to cut down the costs by using these existing facilities. That has been our principle for years, and we have not been able to divert from it. I don't believe we will be justified in diverting from making full use of all of our existing facilities for all of these various functions that we have to perform in connection with mobilization.

Mr. FULTON. But those buildings are permanent brick and stone buildings in the main, aren't they?

General TWADDLE. That is correct, sir, but I don't believe that we would be justified, if we could make use of them for this purpose, in abandoning them and putting up temporary construction somewhere else.

Mr. FULTON. The only query I had was, Has the Army built some of those buildings during the last 10 or 20 years? If so, why didn't they build them on the bigger-area spaces, where they could have been used on the larger emergency camps?

General TWADDLE. Because of the requirement that we had a lot of money invested in these very small posts and saw no possibility of abandoning them in the near future. We just concluded that we would have to live there and make the best of it.

Mr. FULTON. Although for tactical and staff reasons you would have preferred to have larger posts?

General TWADDLE. That is correct, sir.

Mr. FULTON. And many of these posts haven't got a sufficient range to fire even a rifle, have they?

General TWADDLE. Well, a few of them have no range facilities.

Mr. FULTON. And yet the Army feels they should be continued even after this emergency is over?

General TWADDLE. No, I don't believe the Army feels that they should be continued. If they can be utilized by other departments of the Government or sold to commercial concerns for a reasonable amount of money, a reasonable return on the investments, I think it would be to the best interests of the Army that they be disposed of, and permit us to concentrate our troops in larger camps.

Mr. FULTON. Now with respect to the camps that existed after the war and which were abandoned and which now have been used again, did the G-3 have any particular plans with respect to how those should be utilized again in the event of an emergency?

General TWADDLE. G-3's plans for the utilization of camp sites for the training of divisions were those which were included in the mobilization plan and appeared in the protective mobilization plan of 1940.

Mr. FULTON. I noted with respect to that, that you had certain notations as to the National Guard divisions and where they would be sent. Did you have a similar plan as to selective service or draft troops and where they would be sent, because I didn't see one in your report?

General TWADDLE. In connection with the mobilization plan of 1940, you will find a complete station list for all the units that we expected to mobilize under the protective mobilization plan.

Mr. FULTON. So that you could give us a similar list to the one that you gave with respect to the National Guard units, for all units?

General TWADDLE. For all units.

Mr. FULTON. Would that list show that they were sent to the same places as had been planned originally, or would it show changes?

General TWADDLE. Well, I think that you will find some changes. There is one thing that I would like to point out, sir, that the 1940 protective mobilization plan has applied in this current mobilization. We have leaned on it very heavily, and we have used it as a basis for all of our current planning. There are two features which are included in that plan which are not actually being carried out. That plan was drawn up on the assumption that troops would immediately move to the theater of operations; it was assumed that we would have a war on our hands and that troops would move out promptly at peace strength and go to the theater of operations. That has not obtained in the current situation.

Mr. FULTON. Was there an alternative plan with respect to what did happen?

General TWADDLE. No, sir; there was not, because we couldn't visualize a mobilization in the United States without a war on our hands. It never had occurred in past history, and we didn't expect that the Congress would ever consider the passage of the Selective Service Act in time of peace. Our plan was based upon the premise that the Congress would pass the Selective Service Act after the declaration of a national emergency, and in our planning we assumed that Congress would take 2 months to pass that act. Our plan was based upon that assumption.

Mr. FULTON. Was there any plan at all based on the other assumption?

General TWADDLE. No, sir; there was no plan, no detailed plan, such as we presented yesterday, on the basis that there would be a peacetime mobilization without any war on our hands.

There is one other point that I would like to bring out before I answer another question, if I may. I mentioned that there were two features of our protective mobilization plan which do not apply in the present time. In our protective mobilization plan, there is quite a comprehensive system of training loss replacements.

Our whole replacement center system was based upon the theory that they would train individuals to replace casualties which took place in the theater of operations. The number that we required in the protective mobilization plan was not nearly as many as we have to set up now in our replacement centers to replace the selective-service men as they go home. The replacement center system now is built on a maximum capacity of 210,000, including the overhead, and it is designed in capacity to house and train sufficient individuals to replace individuals in the units who have completed their year's training and gone home. There is a difference in capacity there of approximately 75,000. In other words, we had to reach out and get capacity, get ground, too, for the training of these additional 75,000, which amounts to practically—not quite—the area required for five Infantry divisions.

Mr. FULTON. And that rather dislocated your mobilization plan because you had to use different areas for different purposes than you originally had planned.

General TWADDLE. That is correct. That is just exactly what happened.

Mr. FULTON. Another thing that dislocated it, I assume, is the increased importance of the air arms.

General TWADDLE. Yes; there has been quite a material increase in the Air Corps, which we hadn't contemplated in the 1940 plan.

Mr. FULTON. And also had the Artillery regiments and divisions been placed in the same places that you had in mind originally, or have they been somewhat shuffled about?

General TWADDLE. They have been changed somewhat, because when it was clearly evident that we were going to have a peacetime mobilization, it was desired to have some sort of reasonable tactical organization within the zone of the interior, the continental limits of the United States. Therefore, in the assignment of divisions to corps, and corps troops to corps, we did change the stations of a number of units so as to have the units within a relatively reasonable distance, so that if the corps, for example, wanted to get them together for maneuvers, they wouldn't run into excessive costs for transportation to the maneuver area.

Mr. FULTON. Those very practical reasons meant that when you changed one intended use, you might have to provide for the facilities elsewhere, and that might, in turn, start a whole chain of changes?

General TWADDLE. That is it. It required quite a number of changes.

Mr. FULTON. And in fact, taking Fort Meade for example, that is one that you did not originally intend to use at all?

General TWADDLE. That is correct, but circumstances forced us to, practically, because we could not use Fort Eustis.

Mr. FULTON. And you couldn't use Fort Eustis because you had given part of the space on Mulberry Island to the Air Corps.

General TWADDLE. That is correct.

Mr. FULTON. And that, in turn, caused repercussions which meant that four or five changes had to be made for that one thing alone.

General TWADDLE. And at Fort Eustis we had originally planned to put in a Coast Artillery replacement training center of much smaller capacity than the one we now have. So we had to use more area at Eustis for the replacement center.

Mr. FULTON. And these numerous changes were caused largely by the fact that the only plan available was the plan based on facts other than those which occurred?

General TWADDLE. That is correct.

Mr. FULTON. During the World War, did not the Secretary of War advocate, before the declaration of war, that the United States create a Regular Army of half a million men or more, and was there not a considerable amount of discussion as to whether that should not be done?

General TWADDLE. I don't recall that.

Mr. FULTON. I thought there was a so-called garrison plan for an enlarged Army, merely because of the existence of conditions in Europe of the type that they then caused the feeling on the part of some people, anyhow, that our Army ought to be enlarged to meet the emergency.

General TWADDLE. I never have read that plan. No, sir; I have never read that plan.

Mr. FULTON. Was there no discussion during the last 20 years as to whether or not in the event of a large war in Europe, the Army should not be expanded before the United States declared war?

General TWADDLE. I think it has been a policy of the Government throughout the lean years not to support a large Army.

Mr. FULTON. But I was talking about after a war is declared in Europe. Had the Army made any plans to ask for an enlarged Army prior to the declaration of war, or was the Army satisfied to continue with its 150 posts and skeleton form until the day war would be declared?

General TWADDLE. We thought that we would be practically forced to that.

Mr. FULTON. My question related to whether they made plans of any kind to ask for an enlargement, even though they thought they might not get it.

General TWADDLE. Since this current situation has come up, of course, we have asked the Congress for additional increases in the Regular Army. The first increase of 17,000 ran the Army up to 227,000. There were later increases of 15,000 and 38,000, which took the Army up to 280,000.

Mr. FULTON. He gave us the figures, but my question did not so much relate to the increases that occurred, but it related to the question of whether the Army, prior to the emergency, had any plans at all for asking for a scientific increase in the Army to take care of the emergency.

General TWADDLE. No, sir; not to my knowledge, because it was the policy of the Government to have a small standing Army.

Mr. FULTON. But the question I really want to know was whether the Army had a policy different from the Government or whether it was considering the question of presenting to the Government a problem for determination.

General TWADDLE. It has been our plan throughout these years to ask the Congress for money for equipment to put into war reserve, if the country chose to have a small standing Army, because we felt that with the critical items of equipment available, under the circumstances we could get together and train a force in a relatively short period of time. I don't believe the Army has submitted to the Congress any recommendation for a large Army during time of peace, such as we have had now, during the last 20 years, because it was opposed to the governmental policy, the policy of the administration, and the desire of the people.

Mr. FULTON. In general, with respect to the selective-draft camps, say, would you say that they more nearly followed the mobilization plan than the National Guard divisions, or would the National Guard divisions be more nearly—

General TWADDLE (interposing). I don't understand that question. You referred to selective-service camps. What do you mean by that, sir?

Mr. FULTON. I mean camps where you are training the persons who have come into the Army through selective service as distinct from National Guard. Are their training centers centers which had been planned under the mobilization plan to as great an extent as the

ones of the National Guard? In other words, were your plans for the National Guard ones that you followed more nearly than the plans that you have for selective service?

General TWADDLE. We followed, also, the locations which we had set up in our mobilization plans for these replacement centers very largely. I think that you can go through the list of our replacement centers in the 1940 mobilization plan, and you will find that we are utilizing practically all of them.

Mr. FULTON. No; my question related to the training centers where you intended to train an army raised by the draft or other similar legislation, as to whether they are now being trained in the places where it was planned under the mobilization plan.

General TWADDLE. Well, not in all instances, as I pointed out in my statement yesterday. The locations of some of these National Guard camps are entirely different from the ones we had in our plan.

Mr. FULTON. I was thinking of making a distinction between the National Guard and draft.

Senator BREWSTER. Are there any places where you are training the selective-service men entirely distinct from the National Guard?

General TWADDLE. I have in mind one case, Camp Wolters, in Texas, which at one time we had planned to use for the training of a National Guard division. We now have in there an infantry replacement training center of a capacity of about 15,000.

Senator BREWSTER. And the selective-service men are sent directly there?

General TWADDLE. The selective-service men are sent directly there from reception centers.

Senator BREWSTER. And receive some of their preliminary training?

General TWADDLE. They receive 13 weeks of basic training. After that period, they are sent to the units.

Senator BREWSTER. Is that the only case that occurs to you now?

General TWADDLE. We are utilizing a total of 21 camps for these enlisted replacement training centers.

Senator BREWSTER. Distinct from National Guard?

General TWADDLE. Distinct from National Guard; yes, sir.

Senator BREWSTER. I think that answers your question.

Mr. FULTON. My question just related to whether those were the same places that you intended to train an army that would be raised through the draft.

General TWADDLE. I don't quite understand what you mean when you say that we are raising an Army through the draft, because we have in the Army today the Regular Army divisions, the National Guard divisions, and enlisted replacement training centers. Some of the camps which we had set aside for the training of National Guard divisions are now being utilized for the enlisted replacement training centers. Drafted men, or selective-service men, are being trained in units at the present time as well as in these enlisted replacement training centers.

Mr. FULTON. Taking the National Guard, then, as an example, I note that there were 18 divisions listed in your tabulation,¹ that 6 were where they were planned to be, that 3 are at alternate places, and that 9 are on entirely new sites.

General TWADDLE. Yes, sir.

¹ Supra, p. 190.

Mr. FULTON. Would you say that on the average that would apply to the entire Army with respect to the mobilization plan, that only half of the places are where we expected to train them?

General TWADDLE. The greater part of them we are using for one purpose or another, and these changes were forced upon us when it was determined that we had to increase the capacities of our replacement training centers. We made full use of all of the existing camps that we had at that time and had to go farther and get new camps.

Mr. FULTON. But the plan really means that only one-third of the National Guard are where they were originally planned to be today.

General TWADDLE. That is correct.

Senator BREWSTER. As I understand, the possibility of a peacetime mobilization was never contemplated?

General TWADDLE. That is correct, sir.

Senator BREWSTER. Because it never had happened before.

General TWADDLE. That is correct.

Senator BREWSTER. This country had never been ready for that. Isn't the story of the last decade one of things happening that never had happened before?

General TWADDLE. Yes, sir.

Senator BREWSTER. And from the period of 1934 to 1939, Germany was engaging in a great rearmament program.

General TWADDLE. Yes, sir.

Senator BREWSTER. Of which your organization was advised?

General TWADDLE. Yes, sir; that is correct.

Senator BREWSTER. You had your military attachés in Europe at all the capitals?

General TWADDLE. Yes, sir.

Senator BREWSTER. Keeping you advised as well as they could of what was going on?

General TWADDLE. They gave us all of the information which they could substantiate.

Senator BREWSTER. Yes. And this finally culminated in the actual outbreak of hostilities?

General TWADDLE. Yes, sir.

Senator BREWSTER. In 1939, August 1939?

General TWADDLE. I have forgotten the exact date that the German forces moved out but it was in September 1939.

Senator BREWSTER. September 1, 1939. Following that, within a month or two, the United States' Neutrality Act was severely modified?

General TWADDLE. Yes, sir.

Senator BREWSTER. Looking to a program of our selling war supplies to Europe?

General TWADDLE. That is correct.

Senator BREWSTER. That indicated, I assume, that America was very much concerned about what was transpiring overseas?

General TWADDLE. Yes, sir. I am quite sure that that was the impression.

Senator BREWSTER. And that also we were beginning to get our fingers near the fire; did it not?

General TWADDLE. That is correct, sir, and about that time, if you will recall, sir, the President authorized an increase of the Regular

Army of 17,000, which increased it to 227,000. He also authorized an increase in the National Guard, the enlisted strength of the National Guard, of about 41,000, which raised its strength to 235,000. That was on September 8, 1939.

Senator BREWSTER. Yes. Now, during the year that then ensued, from September 1939 when war broke out, and our Neutrality Act was modified, as I understand, throughout the course of that year up to the time we actually adopted the Selective Service Act, you did not contemplate such a possibility of action by the Congress.

General TWADDLE. No, sir.

Senator BREWSTER. Don't you feel that at some time during that year, those in charge of our war plans should have begun to be conscious of the fact that perhaps the American approach to these things was changing?

General TWADDLE. During that period, sir, of September 1939 to March of 1940, the War Department completely revised its protective mobilization plan.

Senator BREWSTER. Well, I understand that was with regard to the difference in tactics which was being revealed in the German approach. Is that right?

General TWADDLE. Our principal reason for revising that plan was to have things all set in case we went any farther, in case we got any increase in the Regular Army, a further increase in the Regular Army or the National Guard. It did not contemplate, however, the passage of a Selective Service Act in time of peace. I must be frank about that.

Senator BREWSTER. Yes. You underestimated the possibilities of both the Congress and the country in that regard.

General TWADDLE. Yes, sir.

Senator BREWSTER. And that did seriously prejudice our later handling of the situation by reason of plans which did not exist.

General TWADDLE. Yes, sir.

Senator BREWSTER. Now, in the location of these sites, as I understand from your evidence yesterday, quite careful study had been given to a good many of these sites as to their possible utilization?

General TWADDLE. Yes, sir; that is true.

Senator BREWSTER. Was that true of all these National Guard locations?

General TWADDLE. Well, we were doing things hurriedly at that particular time.

Senator BREWSTER. This, you see, is away back in 1938. You had your National Guard divisions located. Your first list.

General TWADDLE. We had the locations tentatively set up in our plan for all National Guard divisions in 1938, but we revised those again in 1939, and again in 1940.

Senator BREWSTER. So that you were studying—

General TWADDLE (interposing). We were studying the situation all of the time.

Senator BREWSTER. Over a period of years.

General TWADDLE. Yes, sir; that is correct.

Senator BREWSTER. So that those sites were selected with some care and thought.

General TWADDLE. They were selected on Government-owned land, principally, existing facilities.

Senator BREWSTER. I am not thinking about that. At any rate, you did give quite serious attention and study to that?

General TWADDLE. Yes, sir.

Senator BREWSTER. And that was true of the changes in location which were made during 1939 and early in 1940?

General TWADDLE. That is correct; yes, sir.

Senator BREWSTER. You were still operating not under great pressure at that time?

General TWADDLE. Yes.

Senator BREWSTER. You spoke of Camp Blanding as being selected after studies by two boards from among six sites that were considered.

General TWADDLE. Yes, sir.

Senator BREWSTER. What were those other sites?¹

General TWADDLE. I haven't a record of those other sites. I am sorry. I believe they are of record in the office of the Fourth Corps Area headquarters. I never saw the reports of the other sites.

Senator BREWSTER. Have you someone here who is associated with that examination?

General TWADDLE. Colonel Chamberlain, have you a record of the report of the sites in Florida, other than Camp Blanding? The G-4 division has a record of those reports.

Senator BREWSTER. And someone will testify following you about that. That was concerned with the plans?

General TWADDLE. Yes, sir; I think they have all the data upon which to base their testimony.

Senator BREWSTER. As I understand, the only consideration which concerns you is determining that the site is adequate for training.

General TWADDLE. Yes, sir.

Senator BREWSTER. Including the field artillery.

General TWADDLE. Including suitable target ranges for firing, for small arms, and for artillery, and of sufficient size so that we could maneuver our units.

Senator BREWSTER. About what did you say you desired for that?

General TWADDLE. Sir?

Senator BREWSTER. About what acreage did you indicate that you desired?

General TWADDLE. About 60,000 acres is a desirable area.

Senator BREWSTER. For a division?

General TWADDLE. For a division.

Senator BREWSTER. And would that mean that two divisions would want 120,000?

General TWADDLE. No, sir; I don't think that we would have to go that high. I think with two divisions and some rotation of the use of the land, I don't think we would have to go that high on land. I should say, off-hand, about 100,000 acres.

Senator BREWSTER. What do you consider as to the possibility of operation by aircraft?

General TWADDLE. You mean the employment of aircraft near these reservations?

Senator BREWSTER. Yes.

General TWADDLE. We would like near each one of these camp sites at least a reasonable landing field so we can bring our planes in. As far as bombing is concerned, bombing operations by the Air Corps, they

¹ See *infra*, p. 226, for list of other sites.

would need an entirely separate area for that purpose. We couldn't take any chances on the utilization of any camp where training was going on in divisional units as a site for bombing, or for antiaircraft fire, either, for that matter, without endangering some of our troops.

Senator BREWSTER. It would simply be a case of observation and such coordination as you would have between your artillery and your aircraft?

General TWADDLE. That is correct, sir. Just merely observation of fire and perhaps some photographic work for use in the artillery firing.

Senator BREWSTER. Are such facilities available at these various divisional sites?

General TWADDLE. They are being made available at the present time. At some camps we have them already. If they are not right at the camp, they are within reasonable flying distance of the camp.

Senator BREWSTER. At Blanding, for instance, were is your air operation?

General TWADDLE. At Jacksonville.

Senator BREWSTER. How far is that?

General TWADDLE. About 25 miles.

Senator BREWSTER. It is a little more than that unless your airfield is outside of Jacksonville.

General TWADDLE. Twenty-five or thirty-five.

Senator BREWSTER. That is at the municipal field?

General TWADDLE. Yes, sir; we have set up, as a requirement for the location of these new sites which we are now surveying and getting in broad reports on, that it is preferable that the landing field be within 50 miles of the camp sites.

Senator BREWSTER. The Navy has a very good one within 2 miles. What would be your dealing with them on that?

General TWADDLE. I doubt very much if the Navy would loan us any planes for the observation of artillery fire.

Senator BREWSTER. I am speaking now of the use of the field.

General TWADDLE. I don't know whether the Navy has been approached or not, but I doubt very much if they would want our planes coming in on their landing facilities.

Senator BREWSTER. I was quite surprised to discover, after knowing the difficulty which you had about your operations, what was apparently an adequate field there, with good transportation and everything else, and not being used. I think it is simply an outlying field that the Navy has. To what extent they are going to use it, I don't know.

The CHAIRMAN. There isn't any reason why the Navy should not cooperate is there?

General TWADDLE. No, sir; and perhaps it is our fault that we haven't asked them about it.

Colonel WILSON. Senator Brewster, I can answer that question. The Navy has not only one field, but they have several fields in that neighborhood at Camp Blanding. I went there personally to see that steps are being taken to make one of those Navy fields available. However, that field is not large enough, nor are the runways in such shape continually that you can land the large Army planes in there.

Senator BREWSTER. We are speaking now of the observation planes, which I assume are somewhat smaller.

Colonel WILSON. Yes, sir. And the next point is that we are actually going to construct in the near future a small runway strip for observation planes right inside the Blanding Reservation. I was personally coordinating with the Navy to see if we could use one of those fields, temporarily, at least.

Senator BREWSTER. I would like to ask one more question while you are on, Colonel Wilson. I assume that under the stress of this emergency, we all have been forgetting our past prejudices, but I am on the Naval Affairs Committee, and the Navy intimated that you fellows wouldn't let them on Hickam Field, at Hawaii, greatly to their dissatisfaction, that the general in charge took a very positive attitude, although that was in the immediate vicinity of Pearl Harbor. Do you know anything about that?

Colonel WILSON. No, sir; I do not.

Senator BREWSTER. I am not going to undertake to place the responsibility about the operation, but I think that we all are going to have to realize that we have got to work more and more closely together and get some of that cooperation Mr. Hillman was talking about in all branches of our national effort. I detected in our naval discussions that there is still a little separation.

Colonel WILSON. Of course, I think both the Army and the Navy are trying their best to overcome any of those handicaps which you mentioned, Senator.

Senator BREWSTER. Yes.

Colonel WILSON. And we welcome any notes like you just made about the Hickam Field, and I can assure you that that will be looked into by the War Department.

Senator BREWSTER. I don't know but that that may be typical down there at Blanding, but I was interested and somewhat surprised to see these fields. I saw the various ones you speak of. I passed them a dozen times. I never saw a Navy plane anywhere near them. I found one old fellow that I inspected there, who apparently was having a very comfortable job looking after it. And here the Army was within 2 miles with no use whatsoever being made of that Government reservation and facility. I certainly think that some accommodation should be pretty promptly worked out if you need it, which I assume you do.

Colonel WILSON. I agree with you. Those fields, of course are emergency landing fields for the naval training station which is outside of Jacksonville.

Senator BREWSTER. Yes.

Colonel WILSON. They are part of that particular station.

Senator BREWSTER. Yes, I know.

Colonel WILSON. We are doing just exactly what you anticipated.

General TWADDLE. The Senator asked as to the training sites which were surveyed or reconnaissances made for training sites in Florida. I have a list of them here, sir. Eastport site, Whitehouse area, Gilmore tract, Durbin area, Greencove Springs area, and the Kingsley Lake area. Camp Blanding is located in the vicinity of Kingsley Lake.

Senator BREWSTER. Was that Kingsley Lake area distinct from the Blanding site?

General TWADDLE. No, sir, that is the Blanding site. It goes over there to Kingsley.

Senator BREWSTER. You studied the matter simply from the standpoint of the training possibilities?

General TWADDLE. Yes, sir; training.

Senator BREWSTER. Then you left to G-4 the determination of the construction problem.

General TWADDLE. Yes, sir; that is correct.

Senator BREWSTER. The intimation has constantly appeared that the tremendous increase in cost in the construction of these cantonments was a result of the haste under which it was necessary to act.

General TWADDLE. I presume that was correct, sir. All of the conditions could not be foreseen.

Senator BREWSTER. No. So far as Camp Blanding is concerned, it had been contemplated for apparently at least a year that it would be used as the site of two divisions.

General TWADDLE. Not quite, sir. I think the date when it was determined that we would use Camp Blanding as a division site was June 20, 1940; and July 31, 1940, for the two divisions.

Senator BREWSTER. You have reconciled your dates now in the two statements which you made yesterday.

General TWADDLE. Yes, sir; those are the same dates that we used yesterday.

Senator BREWSTER. Not in your prepared statement. There was a conflict.

General TWADDLE. In connection with the statement on Camp Blanding?

Senator BREWSTER. Yes; there was a conflict between your two statements that you made there yesterday, I think you will find.

General TWADDLE. I will be very glad to straighten that out if that is true. I am sure the dates are June 20, 1940, and July 31, 1940.

Senator BREWSTER. That was on the two divisions?

General TWADDLE. We decided to put in the two divisions there on July 31.

Senator BREWSTER. When was the decision about one division?

General TWADDLE. We had it included in our 1940 protective mobilization plan that was published in March 1940.

Senator BREWSTER. Those decisions were sometime before that?

General TWADDLE. Sometime before that.

Senator BREWSTER. Do you know whether or not following that decision you did develop plans as to the precise arrangements which would prevail at that camp as to how it would be utilized for the two divisions?

General TWADDLE. That was not done by G-3 division.

Senator BREWSTER. That would be G-4?

General TWADDLE. Or the Quartermaster General.

Senator BREWSTER. You don't have any knowledge whether they went ahead?

General TWADDLE. I don't have any knowledge of that at all, no, sir.

Senator BREWSTER. Well, the entire report which we have received so far has been that the trebling of the cost of Blanding from the \$10,000,000 original estimate up to around \$30,000,000 which it is now approaching, was the result of inadequate planning. Where the responsibility for that is, of course, is to be determined, and any

comment which you have would be appropriate because that is what we have got to try to find out.

General TWADDLE. Well, the G-3 division certainly must accept the responsibility for having recommended that site for the use of two divisions. As I stated in my statement yesterday, a representative of G-3 division went over the site with General Moore, who is now the Deputy Chief of Staff, and also representatives of the corps area and of G-4, and they were all in agreement that it was a suitable place for the purposes intended. G-3 accepted those recommendations and in turn made recommendations to the Chief of Staff, accordingly.

Senator BREWSTER. What is the acreage there now?

General TWADDLE. About 128,000 now.

Senator BREWSTER. Is that all owned, or is some leased?

General TWADDLE. About 100,000 leased.

Senator BREWSTER. Leased?

General TWADDLE. Actually, there are 119,853 acres in the reservation; 27,000 are leased.

Senator BREWSTER. That is, leased from the State?

General TWADDLE. The 27,000 acres are owned by the State.

Senator BREWSTER. They allow you to use that without cost, I assume?

General TWADDLE. Yes, sir. We have an agreement with them, and the Penney farms, which are adjacent to the reservation, are utilized for military purposes under the lease for 2 years. There are 89,000 acres.

Senator BREWSTER. How much is paid for that lease?

General TWADDLE. I haven't the figures on that, sir, but G-4 probably can furnish those figures.

Senator BREWSTER. Does G-4 have that?

General TWADDLE. The figure I have here, sir, for the lease of the Penney area is \$6,557.50 annually. General Somervell will have more detailed figure in connection with these leases.¹

Senator BREWSTER. Does that cover the entire amount which he receives for it?

General TWADDLE. To the best of my knowledge; yes, sir.

Mr. JULIUS H. AMBERG.² General Somervell will have the complete figures when he comes here tomorrow.

Mr. FULTON. Do you know the terms?

General TWADDLE. Two years.

Mr. FULTON. Subject to renewal at the same rent?

General TWADDLE. I don't know whether those stipulations are in the agreement or not.

Mr. FULTON. What would happen if the lease term ran out and there was no way of renewing at the same amount? You would have to condemn?

General TWADDLE. We would have to start condemnation proceedings and condemn the land. The gentlemen who are to follow me can give you much more detailed information.

Senator BREWSTER. Is this lease embraced in one document?

General TWADDLE. There are 11 different leases.

Mr. FULTON. Is there a provision as to who owns the fixtures and buildings at the end of the lease period?

¹ See *infra*, for testimony of Gen. Brehon Somervell on this subject.

² Special Assistant to the Secretary of War.

General TWADDLE. That is all in G-4's bailiwick, and I don't know the answers.

The CHAIRMAN. General, in this mobilization plan, as it has finally worked out, how many armies do you contemplate?

General TWADDLE. There are four field armies.

The CHAIRMAN. Four field armies?

General TWADDLE. Yes, sir; but the Army troops for the four field armies are not complete. We have the Army troops for two field armies rather complete, but for the two others they are not fully rounded out.

The CHAIRMAN. How many corps?

General TWADDLE. Nine corps. Five of those corps are complete with corps troops, and the remaining four corps have some corps troops, but they are not complete.

The CHAIRMAN. Have you the complete equipment for these five corps that are complete?

General TWADDLE. No, sir.

The CHAIRMAN. Then you couldn't fight tomorrow if you wanted to.

General TWADDLE. We couldn't make a very good showing, I believe, sir. We could fight defensively with some units, a few of our units.

The CHAIRMAN. With rifles and old 75 guns ¹ in all probability.

General TWADDLE. Not old rifles. I think we would have new rifles for those units, but perhaps our old 75 guns.

The CHAIRMAN. How many rifles have you? Do you know?

General TWADDLE. No, sir; I haven't the figures on the number.

The CHAIRMAN. I suppose someone can give us the figures.²

General TWADDLE. Yes, sir; we can get the information.

The CHAIRMAN. Do you have enough old Springfield rifles to equip these million men, if you had to equip them with Springfields?

General TWADDLE. Yes, sir; and with the new Garand rifles that we are getting off the line every day.

The CHAIRMAN. You have about 3,000 or 4,000 modernized 75 guns, isn't that right?

General TWADDLE. At least that many; yes.

The CHAIRMAN. How many antiaircraft guns have you? Do you know?

General TWADDLE. No; I haven't that data here. I am sorry.

The CHAIRMAN. What I was getting at is this: You made a statement yesterday that we could fight tomorrow, and I just don't believe we can do that.

General TWADDLE. If we had to, I don't know that we would have any other choice. I think we would go out and fight. That is the statement I made—if we had to fight, we would fight.

The CHAIRMAN. I don't think there is any doubt about that. But so far as the equipment is concerned, we would be exactly in the same position as the Greeks are when the Nazi 37-ton tanks run over their little ones, and we haven't even got the little tanks.

General TWADDLE. We have some of the light tanks coming off the line, and the number is increasing right along.

The CHAIRMAN. Are they fully equipped? Have they all the guns?

General TWADDLE. It is the armored divisions that you have reference to now?

¹ 75 millimeter field artillery pieces.

² Supplied confidentially by War Department to the committee.

The CHAIRMAN. Yes.

General TWADDLE. They are not fully equipped. We are not fully equipped with medium tanks. Some of our light tanks are being used in the medium tank organizations.

The CHAIRMAN. I see.

Are there any other questions?

Senator BREWSTER. I want to go into this question of the organization. Through what division of the Army is the training actually handled?

General TWADDLE. At the present time there is a division of that responsibility. Our field force units are being trained under the direct supervision of the Chief of Staff of the General Headquarters, G. H. Q., which is directly under General Marshall. That has been taken away from the G-3 Division, and the responsibility is set with G. H. Q. So far as those units which are not a part of our field forces and the training of individuals in our enlisted replacement training centers, that is G-3's responsibility, and the conduct of the various schools.

Senator BREWSTER. Well, approximately how many men have been allocated to the field armies, as they are called?

General TWADDLE. Of course, you must understand, sir, that there are a lot of these units not yet activated; they are to be activated in June. We have about 900,000, or will have by June 30, in our field forces.

Senator BREWSTER. That will embrace some of the Regular Army that are now not engaged in fixed fortifications, and so on?

General TWADDLE. Yes, sir.

Senator BREWSTER. And the National Guard units in substantial measure?

General TWADDLE. Yes, sir.

Senator BREWSTER. And then the units which are now under training?

General TWADDLE. That is correct.

Senator BREWSTER. And that is what you contemplate using for possible maneuvers this summer?

General TWADDLE. Well, I doubt very much, sir, if we can utilize all of these troops in maneuvers this summer prior to June 30. We do plan later on, after these men become better trained, to run the troops out into larger maneuvers in the fall of this year.

Senator BREWSTER. You do hope in August and September to put on quite a comprehensive field problem.

General TWADDLE. That is correct, sir large Army problems.

Senator BREWSTER. As many as you can conveniently and economically concentrate somewhere in the South?

General TWADDLE. That is correct.

Senator BREWSTER. Where you will put the problem on?

General TWADDLE. That is correct. General Headquarters supervises the setting up of these various maneuvers.

Senator BREWSTER. Do you know how many officers you have allocated to the General Headquarters now to handle this problem?

General TWADDLE. Offhand, I would say about 20 or 25 officers under General McNair, who is supervising the general training of the field forces.

Senator BREWSTER. I assume you would recognize that one of your greatest problems is the matter of staff work.

General TWADDLE. Yes, sir; there is no doubt about that.

Senator BREWSTER. In which, in a sense, as General Marshall more or less indicated yesterday, you have been compelled as a result of the limited size of the Army more or less to play dolls for the last 20 years.

General TWADDLE. I guess that is true, sir.

Senator BREWSTER. And that isn't your fault or responsibility, but that has been the only provision you could make. But when you come to put five or seven hundred thousand men into the field, while the problem of the small units is exactly the same as it always has been, when you get to the big units, that is something else again.

General TWADDLE. We haven't had the training in handling the larger units. That is more of a problem for our Regular officers to perform those functions.

Senator BREWSTER. And that has been apparently the field in which the Germans have excelled.

General TWADDLE. They have excelled in that field because they have practically lived in the field all the time. The troops have engaged in continuous maneuvers.

Senator BREWSTER. And there has apparently been a rather complete continuity between the old German General Staff and the present one.

General TWADDLE. Undoubtedly true.

Senator BREWSTER. Carried right down through. I assume that with the provision which has now been made, to your surprise, by the Congress, that you are moving as rapidly as possible to develop that side of the Army's talent.

General TWADDLE. Yes, sir; we are. We still have the situation, however, that the officers who are here in Washington serving on the General Staff will be relieved after a period of 4 years' duty. That policy has not been changed, and they will then go to duty with troops in order to keep their hand in on commanding troops. Our staff, I might say, sir, varies considerably from that of the German staff, because they have a general staff corps and there is not the constant switching of officers back and forth that there is in our Army.

Senator BREWSTER. The allocation of 20 officers seems rather meager.

General TWADDLE. You must understand, sir, that if they move into the field, go into the theater of operations, that headquarters would have to be materially expanded. At the present time, their principal function is one of supervising of the units and the actual supervision of the conduct of maneuvers, which is advanced training, so their job now is one of training, primarily, whereas in the theater of operations they will then take over the task of operations, the actual conduct of the operations, which is a considerably heavier load, and they would have to be materially increased, there is no doubt about it.

Senator BREWSTER. What do you feel as to the matter of going from the preliminary training which is now in process, a 13 weeks' course, in some instances directly into the large-scale field maneuvers without the intervening action of the units that are in between.

General TWADDLE. Stepping back to when we first brought in the selective service men, it was seen very early in the summer of 1940 that

we would have to bring in the National Guard in order to utilize the equipment which they had, to train these men. These men who have been sent to the National Guard organizations have undergone that basic training within the unit prior to their utilization in the unit as part of a team. We feel—and it is a result, too, of the experience of the British Government, that by putting these men through basic training prior to the time that they join their units turns out a much better trained man and relieves the unit of that extra load of giving the recruit training to all the new men which they get. We had no other alternative when we first started out, because of the equipment situation, and the Chief of Staff did not want us to consider taking away the equipment from the National Guard organization and putting it into these replacement centers at the start. He preferred that the equipment that the National Guard had be kept by them, and to give them these green men to pound through and get them ready to function in units.

Senator BREWSTER. I suppose you would agree that if time permitted you would prefer, after the company battery training, to handle the regiments, then the brigades, and then the divisions, in the field to get them accustomed to their operations before moving into corps or the Army.

General TWADDLE. That is true, and we do plan preliminary maneuvers, divisional field exercises; then we step up to the corps, in which we may have three or four divisions participating in corps maneuvers; then step up still further and have our Army maneuvers in which we will have two or three corps; and the final stage, I believe, that General Headquarters contemplates right now is two armies opposing each other.

Senator BREWSTER. I suppose a decision has to be reached as to the wisdom of undertaking that, even though you wouldn't have been able to carry out all of the preliminary training you would desire.

General TWADDLE. That is true. Although we feel that these men who have gone directly to the National Guard units will be in fairly good shape, because we have had them in, now, for quite a while and reports from the field indicate that these men are swinging into it in pretty good shape; we feel that the men with the National Guard divisions as compared to the men who eventually go through our replacement training centers would be about the same. With the system of replacement training set up, it will take that tremendous load off the unit commander that he should not have; it will give him a man who is basically trained rather than a recruit who has to start from the bottom and be built up.

Senator BREWSTER. You realize that more or less debate is still going on as to whether the maneuvers last summer did more harm than good. Do you feel any doubt about that?

General TWADDLE. No, sir; I think that they were of great advantage to everybody concerned. I presume some of those ideas have gotten to the public because of the critiques which were held after the field exercise, but those critiques are common—we always have them. Senior officers who are controlling the exercises hold these critiques to drive home the points that have been violated, the principles of war which have been violated, and they were not really for public consumption; they were merely to improve the status of the training of our officers and units. We always have those critiques. It has

been a practice ever since I have been in the Army to have these critiques following a field exercise, no matter what its size, even though we had only a platoon out.

Senator BREWSTER. I presume you would welcome a more general understanding by the public of the tremendous problems with which you are faced in moving so rapidly from our state of unpreparedness.

General TWADDLE. Yes, sir; I think the public should be fully informed.

Senator BREWSTER. I say that because, of course, in all the evidence to date there has been a rather optimistic view presented. I think that you should consider seriously, all of you, whether there isn't danger in that. I think that something which may be less optimistic may be helpful. I noticed the chairman's concern about your concluding statement yesterday that you were ready to fight. Well, of course, the facts are that most of the boys would have to fight with bare hands.

General TWADDLE. If we had to.

Senator BREWSTER. Yes; but when I say bare hands I mean as compared to equipment which is adequate so far as European warfare is concerned today.

General TWADDLE. It must be admitted, sir, that the equipment situation is not what we would like to have it.

Senator BREWSTER. Yes. While there is a natural concern that the public should understand the difficulties under which you have operated for the past 5 or 10 years, longer than that, perhaps, there should be at the same time a recognition of the problems which we still face from every angle, that we are not all ready to take on anybody.

General TWADDLE. That is a very good thought, sir. I appreciate that.

Senator BREWSTER. I hope that as this goes on we can bring out just exactly the ways in which Congress and the country can be most helpful in the very great responsibilities that are placed on you gentlemen.

General TWADDLE. Yes, sir.

The CHAIRMAN. That will be all. The committee will recess until tomorrow morning at 10:30. Those who are going to Camp Meade will assemble here in this room as near 1 o'clock as possible.

(Whereupon, at 12:15 p. m., the committee adjourned until 10:30 a. m., Thursday, April 24, 1941.)

INVESTIGATION OF NATIONAL DEFENSE PROGRAM

THURSDAY, APRIL 24, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE INVESTIGATING,
THE NATIONAL DEFENSE PROGRAM,
Washington, D. C.

The committee met at 10:35 a. m., pursuant to adjournment Wednesday, April 23, 1941, in room 318, Senate Office Building, Senator Harry S. Truman presiding.

Present: Senators Harry S. Truman (chairman); Ralph O. Brewster, James M. Mead, and Joseph H. Ball.

Present also: Senators Alva B. Adams, Colorado; James M. Tunnell, Delaware; Hugh A. Fulton, chief counsel, and Charles P. Clark, associate chief counsel.

The CHAIRMAN. The committee will come to order. Colonel Chamberlin, proceed.

TESTIMONY OF COL. STEPHEN J. CHAMBERLIN, CHIEF, CONSTRUCTION AND REAL ESTATE BRANCH, SUPPLIES DIVISION, WAR DEPARTMENT GENERAL STAFF

Mr. FULTON. Colonel Chamberlin, would you tell the committee the position you hold in the Army and the functions generally that you perform?

Colonel CHAMBERLIN. I am Chief of the Construction and Real Estate Section of the G-4 Division, War Department General Staff; G-4 Division has four subsections, one requirement and issue; one transportation; one finance; and one construction and real estate.

Mr. FULTON. So that you are the man who would know the facts with respect to the construction of camps, so far as they come within the purview of G-4 of the staff?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. And would you tell us something of your background and personal experience, engineering and construction experience particularly?

Colonel CHAMBERLIN. Well, I am a graduate of West Point, which is an engineering school. I have had varied experience in the Service for over 30 years, none of it along construction lines. During the World War I was in charge of troop movements out of New York Harbor. Subsequent to that I have served in Panama in charge of transportation for a while, and then with my own branch of service in the infantry.

Later I was in charge, or Assistant Chief of Staff, G-3, of the Hawaiian Department, and have been on duty with troops, of course,

at varying periods. I have also served in the Philippines as a young officer.

Mr. FULTON. On your particular division of G-4 how many engineers or persons with construction experience do you have available?

Colonel CHAMBERLIN. I have very few officers with construction experience. I have one engineer officer; I think probably the only officer you could say that has had construction experience is a lieutenant colonel of engineers.

Mr. FULTON. And would that have been true in 1939 and 1940? Likewise?

Colonel CHAMBERLIN. That is correct.

CAMP CONSTRUCTION

Mr. FULTON. Would you tell us in general how much housing the Army had available in 1940 before it began this big construction program for—how many men?

Colonel CHAMBERLIN. The strength was 227,000; we could house that number.

Mr. FULTON. So that in order to house 1,400,000 you have had to construct housing for over 1,100,000 men, almost 1,200,000?

Colonel CHAMBERLIN. 1,200,000.

Mr. FULTON. And in carrying out that program would you tell us something of the number of the camps and the size of the camps that you had to construct?

Colonel CHAMBERLIN. We have had to construct or develop, I would say, rather than construct, because there was some construction in some of these stations, 9 stations with populations over 30,000, the largest one being 60,000; 36 stations with a capacity varying between 10,000 and 30,000; most of them are over 20,000 and some 200 stations with populations less than 10,000.

Mr. FULTON. So that some of the stations you have developed have been fair-sized cities?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. Would you tell us something of the problems that you meet in general, such as providing land and warehousing and other facilities?

Colonel CHAMBERLIN. In some of these locations, a great many of them in fact, we have had to go on to more or less virgin ground and develop cities with all of the requirements of a municipality such as water, electricity, sewerage, cold storage, warehousing, shelter for troops, animals, and supplies, hospitalization, and facilities for recreation and welfare.

Mr. FULTON. In effect, everything except you might say factories or work in that would have to be available in a city of a similar size?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. Did you have any plan in 1932 as to how to handle the increase that an emergency would require?

Colonel CHAMBERLIN. I might say that prior to 1932 the mobilization plans, those that had been made up in the years following the World War, contemplated shelter in some of the World War cantonments, but by 1932 these had largely disappeared by virtue of having been sold or having fallen down; rather cheap buildings, and very little money was available to keep them in repair, so that by 1932 the policy

with regard to the providing of shelter for mobilization purposes visualized a different type of shelter.

Dependence for hurried mobilization was placed on tentage insofar as it was available, of course existing facilities of our permanent stations, and such of the temporary buildings as did remain; public buildings, Federal, State, county, and municipal, National Guard armories, State and county fairgrounds, exposition buildings and private buildings such as auditoriums, race tracks, warehouses. That expresses the general idea of the shelter in 1932.

Mr. FULTON. On whom was the responsibility or duty of providing shelter placed, on the corps area commanders or on the staff in Washington?

Colonel CHAMBERLIN. The corps areas were charged with providing shelter for mobilization of their own commands. That responsibility included the construction of any cantonments, or tent camps, that had to be constructed to accommodate individuals that couldn't be accommodated in the shelter that I have just reviewed.

Mr. FULTON. Did the Quartermaster General's Department prepare lay-outs for typical installations and distribute information as to amounts and character of materials that would be needed to the various corps commanders?

Colonel CHAMBERLIN. Just how complete those plans were I have been unable to tell by a search through the records. I find that the corps area commanders did have extensive plans, that various studies and reports were submitted as to the amount of materials required and some work in consolidation of those lists was accomplished. It seemed that about the time that these requirements were being perfected that the theory of mobilization changed around 1936 to 1938, so that a complete list of the requirements was not perfected.

However, a great deal of work was done on it, as the records indicate.

Mr. FULTON. Well, the Quartermaster General's staff could of course tell us the extent to which they furnished information at that time. Now could you tell us the extent to which G-4 checked on the sufficiency of the information that was being furnished by the Quartermaster General's staff to the camp corps area commanders, or would that be left largely to those two without any particular assistance or reference to G-4?

Colonel CHAMBERLIN. No; the information coming into the War Department was circulated through the office of the Assistant Chief of Staff, G-4, but was forwarded to the Quartermaster General for detailed work in connection with the consolidation of data. I want to say here that the office of the Chief of Staff, G-4, is rather a small office; it is not an office of record. Its main responsibility is to establish requirements, and it is not equipped with a large force of clerks or other personnel for that matter.

Colonel WILSON. In that connection there is one point I think should be kept in mind, the designation of the Assistant Chief of Staff, G-4, as the Construction and Supply Division of the War Department: General Staff is sometimes misleading. That word "construction" is misleading. The War Department General Staff is not an agency of construction. It is one concerned only with policies and that is why on the War Department General Staff we have officers of all arms and services and while Colonel Chamberlin happens to be chief of the Construction Division of the Assistant

Chief of Staff's office, G-4, it does not require of necessity that he be an engineer officer or a qualified engineer, because the War Department General Staff is concerned with policies; after the policies are laid down, the technical services do the work.

That is to say, the War Department General Staff determines, for example, how many guns of certain calibers we have; the Chief of Ordnance builds the guns, or has them built. The Chief of Engineers——

The CHAIRMAN (interposing). Colonel, I want to find out the relationship between G-4 General Staff and the Quartermaster General.

Colonel CHAMBERLIN. The Assistant Chief of G-4 is a part of the Chief of Staff himself. The General Staff is headed, of course, by the Chief of Staff, and he has five sections in the War Department: these five sections are merely his assistants in the establishment of the policies and requirements which will govern the administration and control and operation of the Army.

Senator BREWSTER. Would you give those five?

Colonel CHAMBERLIN. Yes, I can give those five; they are Assistant Chief of Staff, G-1, in charge of personnel and administration; G-2, Intelligence; G-3, Operations and Training; G-4, Supply, Construction and Transportation; and Assistant Chief of Staff, war plans, Division for War Planning.

The CHAIRMAN. Now G-4 cooperates with the Quartermaster General in his construction problems?

Colonel CHAMBERLIN. There must necessarily, of course, be a pretty close link between the Assistant Chief of Staff G-4 and the Quartermaster General. Of course the Quartermaster General also has many activities. He has transportation, supply, and construction. The various branches, I might say, of the G-4 section maintain pretty close contact because many things have to be decided by telephone and in conference, but the official connection between the Quartermaster General and the Assistant Chief of Staff, G-4, through The Adjutant General; The Adjutant General is the mouthpiece of the Secretary of War, and we, G-4, are an assistant to the Chief of Staff or representing the Secretary of War; when he communicates officially with the Quartermaster General it is done through The Adjutant General of the Army.

Mr. FULTON. On which would the duty be laid to determine whether the corps area commanders were making the plans under the 1932 plan, which G-4 had laid down? Would that be on the Quartermaster General or on G-4?

Colonel CHAMBERLIN. That would be the responsibility of the General Staff, G-4 section.

Mr. FULTON. And did you make surveys of the action of the various corps area commanders to see whether they had made plans along the lines that you have laid down policies for?

Colonel CHAMBERLIN. Yes, sir, that was done in each case when a mobilization plan was instituted; the plan of the next lower echelon has to be sent to the next higher echelon and they check to determine if it is generally along the line desired. In other words the corps area plans were always forwarded to the War Department after preparation in order that they might be reviewed and that review takes place in the General Staff. If there is any great amount of data to be compiled of a technical nature, it is generally placed in what is

called an annex of the mobilization plan, and that annex is forwarded to the service in Washington which is interested.

Mr. FULTON. Then I take it that after the corps area commanders have made their plans in consultation with the Quartermaster General's staff for the shelter of troops, they would then forward those plans to G-4, which would review them and determine whether they were correct or incorrect?

Colonel CHAMBERLIN. That is correct. They are sent in to the War Department and then the various Staff sections review the parts of the plan, corresponding to their responsibility, and if anything is found wrong, the corps area commander is notified.

Mr. FULTON. May we expect to find that at least where permanent posts were to be enlarged that there was a carefully drawn plan by the corps area commander which had been checked both with the Quartermaster General's staff and with G-4?

Colonel CHAMBERLIN. I think you might assume that, yes. I can't speak from personal knowledge of what happened in 1932, and since I have been in the War Department it has been rather a difficult job to get back into past history. We have had so much forward history to write. I can say, however, that each station and unit had complete plans.

Senator BREWSTER. How long have you been there, Colonel?

Colonel CHAMBERLIN. I have been in the War Department since 1938, November.

Senator BREWSTER. With the G-4?

Colonel CHAMBERLIN. I have been with this section; I took charge of the section in July 1939.

Mr. FULTON. Did those plans of 1932 prevail up until the time—say around 1940, when they made different plans?

Colonel CHAMBERLIN. The conception of the shelter for mobilization changed rather abruptly in 1938 and at that time the plan became very much simplified.

Mr. FULTON. Would you tell us something about the nature of the change that was made in 1938?

Colonel CHAMBERLIN. The policy for shelter in 1938 following the general evolution of the mobilization plan, the protective mobilization plan, visualized a marked change in the type of shelter to be used and provided that shelter for troops would consist of existing facilities under control of the War Department. Tentage was to be used for additional shelter. Corps area commanders were charged with construction, limited only to tent floors, kitchens, messes, and sanitary facilities. The plan visualized mobile Regular Army units, leaving home stations by M-5—that is 5 days after mobilization, permitting space vacated thereby to be used for other units to be mobilized. The National Guard would proceed to training centers, all in the South where tentage could be utilized, and were subject themselves to call for the theater of operations at peace strength by M-30. All were expected to leave by M-90, thus vacating space for other units to be mobilized. In both cases units were brought to war strength in the theater of operation, not at their home or training stations.

The acquisition of real estate was not contemplated. Federal and State owned land was to be used. The Quartermaster General was, under this plan, charged with the acquisition of land, the provision of housing and depot facilities, and the construction of cantonments in

the later stages of mobilization. He was required to maintain standard plans for buildings and groups of buildings in order to undertake construction by 30-M, if so directed.

This plan with minor, but insignificant changes was the one in effect in July 1940.

Mr. FULTON. That plan of 1938, then, was somewhat further in the facts as we found them in the emergency than the 1932 plans which provided for more extensive construction?

Colonel CHAMBERLIN. I don't believe I quite understood that question.

Mr. FULTON. Did I understand correctly that the 1938 and 1940 plan, providing for tentage facilities and for rapid vacation of quarters was further from what we are now doing than the 1932 plan?

Colonel CHAMBERLIN. Yes, sir; that is correct. We have constructed on a much more permanent scale than contemplated under the 1938 and 1940 mobilization plan.

Mr. FULTON. And would that mean that we went back and found that we had at least some that we could make use of the plans that had been made in 1932, at least as to enlargement of permanent posts?

Colonel CHAMBERLIN. Well, of course, there is some similarity between the plan of 1932 and the one that we had to utilize in the present construction, but I don't believe that you could have used it very much. The troop basis in 1932 was a great deal different than the present troop basis.

Mr. FULTON. But for example, I understand that on sites they consulted the Corps Area commander during the 1940 construction. Now it would be a help, would it not, to look at what plans he had made himself in 1932 for construction when the construction responsibility was directly on the Corps Area commander?

Colonel CHAMBERLIN. I don't believe you would have had any help out of it at all. I don't think that you could have gotten any help from that plan 8 years old.

Mr. FULTON. At least he would know where he wanted to build the buildings, wouldn't he?

Colonel CHAMBERLIN. Well, possibly, but remember that the plan of 32 contemplated a great deal of shelter other than cantonment shelter; it contemplated shelter armories and in public and private buildings, in race tracks, fair ground, and so forth. That part of the plan had necessarily to be entirely scrapped in this particular mobilization because this mobilization is one of unknown duration. We don't know whether we will be mobilized for 5 or 30 years. We know that Congress contemplated in the Selective Service Act that the principle of selective service would continue for a period of 5 years, so anything we do now must last for a period of 5 years.

We cannot expect to utilize public buildings and race tracks and fairgrounds and such except as a temporary expedient.

Mr. FULTON. The 1932 plan, though, I assume, involved the mobilization of a bigger force than the one we are mobilizing now?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. And of course we would have to disregard those quarters, such as fairgrounds, but what I meant was the permanent posts that were to be enlarged. If those plans had been made in any detail in 1932 would they not have been useful at least to indicate where the buildings ought to be built?

Colonel CHAMBERLIN. We can assume that each post commander had some kind of plan for the enlargement of his post. That plan was probably the one that was used in this particular enlargement.

Mr. FULTON. And would he have had plans to get his water supply, for example?

Colonel CHAMBERLIN. Yes. In fact I think probably the Quartermaster General had plans in his own office for the enlargement of water supply and sewerage systems in most all of the posts.

Mr. FULTON. And I take it, then, that any permanent construction that was done between 1932 and 1940 would have been at least with a view to having suitable water and sewage facilities to continue work with?

Colonel CHAMBERLIN. Yes. I can state that as a positive fact that many of the sewage and water systems were developed on a greatly enlarged base in order that they might accommodate a great many more troops in case of emergency.

Mr. FULTON. And you found that that has been distinctly a help and a saving at this time?

Colonel CHAMBERLIN. That has been a great help in many of them, particularly in the early stages. Of course, I might say that like most of our ideas, we always find them a little too small when we come to put them into effect, and I think that even though we did provide for some expansion that we didn't provide for enough.

Mr. FULTON. And would you, generally speaking, have selected the areas for the building sites with a view to saving money by installing the sewerage and water lines in places where they would be reasonably economical, as distinct from others?

Colonel CHAMBERLIN. That was always a consideration.

Mr. FULTON. Do you refer now only to the permanent posts or to the camps that we had to build?

Colonel CHAMBERLIN. Well, of course, I have been referring to all, but I assume it would be particularly true of permanent posts. Of course, at the stations where we had no permanent construction, at those particular locations, the water supply and sewerage systems were insignificant entirely in comparison with the ones that had to be provided. Now, at permanent stations the problem was, of course, much simpler. We were able to utilize the existing water and sewerage systems to a great extent merely by enlargement. At the larger stations, such as Fort Lewis, Fort Benning, Fort Knox, Fort Devens, Fort Meade, Fort Dix, all of those particular stations grew to such enormous size that the sewerage systems and the general utilities systems proved inadequate, and they had to be greatly enlarged.

Mr. FULTON. Well, at least, in these plans there was an attempt to correlate all the different problems, namely, the buildings to be in locations where they would be properly located from a military and training standpoint, but at the same time where you could install utilities at a minimum of expense; is that correct?

Colonel CHAMBERLIN. That is correct. Now, I must say here again that the War Department General Staff does not concern itself with the details of lay-outs. In our estimate of the requirements we consider those in a general way in order to select localities where economy would be effected, but after we have finally made up our minds as to where we want a group of the Army to go, the details of working out exactly where each building is to go and where a road is to go, and

the technical details relative to how many sewage-disposal plants we need, all of those things are left entirely to the Quartermaster General.

Mr. FULTON. And would it be entirely to the Quartermaster General or the corps area commander?

Colonel CHAMBERLIN. It is more or less a dual responsibility. Our construction policies, which were issued at the commencement of this emergency, specified that the lay-out plan would be made on the ground in consultation between the Quartermaster General and the corps area commander, or their representatives. I might say here that any of you who have had experience with construction work know that the lay-out is one of the hardest things on which to get coincidence of opinion. Everybody wants to put something at a different place. In order to cut down the time factor, which would have been extremely lengthy if the lay-outs should have had to come to Washington for a concurrence of different interested agencies, we specified through intent that the lay-outs would be made on the ground in conference between the corps area commander and the Quartermaster General.

Mr. FULTON. For that reason I assume that the Quartermaster General's Corps would always be consulted before the site was permanently chosen?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. And that it would be their responsibility to determine whether it was suitable from drainage, sewerage, and utilities standpoint generally?

Colonel CHAMBERLIN. That is correct; yes, sir; except I would like to qualify that a little bit in this particular mobilization. In some cases we necessarily had to call on corps area commanders for constituting boards to select sites, and in those cases a representative of the Quartermaster Corps no doubt was on those boards, because the corps area commanders themselves have a full staff that corresponds to the staff in Washington. In other words, the corps area commander has his G-1, G-2, G-3, G-4, quartermaster, engineer, and so forth, including a medical officer. The particular people that we like to have look over a site in order to give us the benefit of their judgment as to its suitability are the quartermaster and the medical officer, because there are questions of sanitation to be settled, also questions of construction that should be looked into, and in case the chief of engineers is charged with that construction there should be an Engineer officer on the board, and we also insist that there should be a line officer, because sometimes economy may be false if you save all the money that you can and do not obtain the correct land training.

Mr. FULTON. Then I assume that before sites were permanently selected that the corps area commander was consulted for the purpose of making sure that the site actually constructed would be all right from a military or training standpoint?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. And that the quartermaster general staff or the engineering staff, as the case might be, would be consulted to make certain that the site selected by the corps area commander was the proper one from the construction standpoint of saving as much as could reasonably be saved?

Colonel CHAMBERLIN. That is correct. Now I might make one qualification, that one of the officers has called to my attention here.

I said G-4 had no particular interest in the details of the lay-out. The only time he would come into the picture would be in case of a dispute between the corps area commander and quartermaster general. If they couldn't compose their differences, then the problem would have to come to the General Staff for decision.

Mr. FULTON. Now, would you tell us something of the changes that you made in your plans about May or June of 1940?

Colonel CHAMBERLIN: I want to review just briefly, if I may, several important factors which were the basis of the mobilization plan of 1940. First, we planned to vacate the shelter utilized by the Regular Army mobile units. Second, a limited period of occupancy by the National Guard of training centers, and their departure therefrom between M-30 and M-90. Third, mobilization of the Regular Army and National Guard units at peace strength. And fourth, the use of the same shelter for successive increments of mobilization.

A number of important considerations differing widely from the basic concepts of the mobilization plan presented themselves in June and July of 1940 which radically changed the basic principles of the type of shelter to be provided. It became evident that the mobilization was to be a peacetime training concentration. Both the Regular Army and the National Guard, instead of clearing existing and additional temporary shelter as planned, would continue to occupy such shelter intended for use for later phases of the mobilization and then not at peace strength but at greatly augmented strength. Moreover, this occupancy was to be for an indefinite period, possibly 5 years for the former and at least 1 year for the latter. New units, such as armored divisions, were to be created; old units, such as National Guard cavalry units, were to be converted into a variety of new types of units. Many units were to be reorganized in the light of European war lessons. The existing loads at many stations resulting from graduated mobilization were radically altered because of mobilization in peace.

Mobile units with the great motorization program required more extensive training ground. I might say here that I have a comparison of the loads at one or two of the stations which might be interesting, to illustrate the wide differences that we found in this particular plan. At Camp Devens, the maximum load under the P. M. P. up to 90-M was 4,000; at 150-M this had dropped to 800; and 180-M to zero.

The present maximum load is 23,241.

At Fort Dix the maximum load up to 90-M was 8,618; at 150-M it was 2,145. The present load, 26,488.

I will only take one or two selected ones in order to save time. I can pass this in, if the committee would like to have it.

The CHAIRMAN. Put that in the record.

(The table referred to was marked "Exhibit No. 31" and is included in the appendix on p. 363.)

Colonel CHAMBERLIN. In the Camp Beauregard area we have two camps, one, Camp Livingston and one, Camp Claiborne. The maximum load up to 90-M was 25,000 in round numbers; at 150-M it was 6,700; at 180-M, 9,398. The present maximum load is 56,085, and so on for most all of the camps.

We find that under the protective mobilization plan we had a graduated load tapering off after 90-M to practically nothing at

180-M; under our present mobilization the loads are greatly exaggerated and continue for an indefinite period.

Mr. FULTON. And that is largely because of those basic factors that you spoke of before, the different conception of how we would mobilize?

Colonel CHAMBERLIN. That is right; yes, sir.

Mr. FULTON. Was there anything of any second plan that you had, or did you have only the one plan for mobilization along the lines of this?

Colonel CHAMBERLIN. Only one plan. The protective mobilization plan was the only one in existence.

Mr. FULTON. Under the requirements of the Selective Service Act as to the type of housing that should be available it made still another difference in your plans, did it not?

Colonel CHAMBERLIN. Yes. General Twaddle indicated that there was no wide variation in the mobilization plan. That is correct, but in the application of this plan to shelter it was a very wide difference. That plan has, of course, been very useful to us, but the Congress indicated in the Selective Service Act in one provision that no man should be inducted for training and service unless adequate provision should be made for such shelter, sanitary facilities, water supply, heating and electrical arrangements, medical care, and hospital accommodations as may be essential to public and personal health.

This requirement, of course, was instrumental in causing the War Department to decide to provide the type of shelter which we have built. Now these changes, of course, coming in June—I think that all of you will agree you were considerably surprised to see the rapidity with which France was overthrown, and I think that every officer in the War Department was just as surprised. The question of why the War Department had not anticipated a peacetime mobilization came up yesterday. Well, did anybody foresee that France was going to fall in 3 weeks? Similarly the War Department did not visualize a situation in which a large peacetime mobilization would occur. So that in June and July we had to proceed very rapidly in the formulation of a policy that would take care of the situation as we found it at that time.

Mr. FULTON. I think the questions yesterday were not so much addressed to whether they foresaw the military difficulties of the present war in Europe, but as to whether the Army had any plans based on this country creating a standing force of a size greater than the Regular Army's existing force before we declared war.

Colonel CHAMBERLIN. Well, I feel more or less like General Patterson expressed it the other day. He made this statement in his testimony on that particular point:

Perhaps someone will say we should have done that a year or two ago. If any Army officer a couple of years ago had said, "I want \$15,000,000 to lay out possible camps or to prepare plans," I submit that they would have been made short shrift of. They would have said it was fanciful and that we should have an Army of 1,400,000 men.

Mr. FULTON. You are talking there of the \$15,000,000 that has recently been discussed for specific lay-outs of 28 specific camps on specific locations?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. Whereas what I had in mind was whether the General Staff had made any plans with respect to having corps area commanders go over the locations and made decisions so far as they could on

the information that they had that would be of use today in at least determining getting sites that would have proper drainage facilities, instead of sites such as, say, Camp Blanding, which has been found to be lower than the lake level.

Colonel CHAMBERLIN. I think that we can definitely say that the corps area commanders did make such plans, insofar as the P. M. P. was concerned, which, after all, is closely related to our present troop basis.

Mr. FULTON. But not on the basis of having a group of soldiers train for a period of, say, a year's time before any war would be declared?

Colonel CHAMBERLIN. That is correct. There was no such plan in existence.

Mr. FULTON. And with respect to a place like Camp Blanding, there was not even any review of that site prior to the emergency, was there?

Colonel CHAMBERLIN. Yes; there was quite a bit of review of that site prior to the emergency.

Mr. FULTON. From the construction angle of G-4?

Colonel CHAMBERLIN. Not the construction angle.

Mr. FULTON. Just from the military angle, a strategic position?

Colonel CHAMBERLIN. Just from the military angle, and its adaptability for use as a training site.

Senator BREWSTER. May I ask a question? I was interested in your comment, Colonel, which I understood was that when the breakthrough came last May in France, the War Department was just as much surprised as was the Congress and the country at that eventuality; is that what you said?

Colonel CHAMBERLIN. I wouldn't want to speak officially for the War Department, but I will speak for the officers I have had contact with, and they were all very greatly surprised.

Senator BREWSTER. Well, wouldn't you feel that the officials there in the War Department ought to be somewhat better informed than the rest of the country or the Congress about such possibilities?

Colonel CHAMBERLIN. Well, undoubtedly; yes; that is correct. Perhaps some officers, those who are in contact with the confidential information which is distributed by the Assistant Chief of Staff, G-2.

Senator BREWSTER. Possibly your statement this morning was a little sweeping, because I didn't think you would want to disavow the possibility that some at least of the officers down there in the War Department might have at least thought of that possibility.

Colonel CHAMBERLIN. Well, under my own personal contacts I saw no one that even had a faint idea that such a thing could happen so quickly.

Senator BREWSTER. Of course, it is all a matter of degree; but, after all, we must depend primarily upon the officers of the War Department for thinking ahead in these situations. I suppose you would recognize that?

Colonel CHAMBERLIN. Yes, sir; that is correct.

Senator BREWSTER. Now I suppose that it is even more difficult to conceive that America would be invaded than it was to think that France might fall so abruptly, isn't it?

Colonel CHAMBERLIN. You mean now or then?

Senator BREWSTER. Either.

Colonel CHAMBERLIN. Well, I would say—this is my own opinion, which probably isn't worth a great deal, because I haven't been thinking along such lines. I have been pretty busy thinking about construction; but it would be my opinion that I would be greatly surprised right now, as long as the English Fleet lasts and the American Fleet lasts, that America could be invaded, except by air.

Senator BREWSTER. Well, you would recognize that the situation is sufficiently serious so that we must begin to think about all possible eventualities?

Colonel CHAMBERLIN. Yes, sir; I think some of the most uncomfortable moments I have had were last June when I found out that France had fallen and that we were totally unprepared. It was a very uncomfortable feeling on everybody's part.

Senator BREWSTER. And it was demonstrated very definitely 20 years ago that German submarines could operate off this coast; was it not?

Colonel CHAMBERLIN. Yes, sir.

Senator BREWSTER. And which might now be coupled with air attack, also?

Colonel CHAMBERLIN. That is correct.

Senator BREWSTER. And all those possibilities must be envisioned in your defensive plans?

Colonel CHAMBERLIN. That is correct, and I think that the secret war plans, of course, do contemplate such things.

Senator BREWSTER. So that you do think that those things are being at any rate now very definitely taken into account?

Colonel CHAMBERLIN. They are; yes, sir.

Senator BREWSTER. You would modify your statement this morning to the extent of figuring that possibly the officers in the War Department should know a little more about these possibilities, even than the Congress or the country?

Colonel CHAMBERLIN. That is their business, Senator; they should know it; yes, sir.

Colonel WILSON. Not only that, Senator, but you say they are being thought of now; they have been thought of for years and years; there has been a war plan for every conceivable situation that might confront the country.

Senator BREWSTER. The only thing, Colonel, is that everybody apparently up to this point has agreed that you never conceived that the Congress would authorize a peacetime mobilization; that is one eventuality that nobody ever thought of. Congress apparently fooled the War Department in that respect. And I will agree that a record of the 150 years possibly justified your conclusions, but it is something which has actually happened.

Colonel WILSON. That is correct; and furthermore right in that connection this protective mobilization plan which the War Department had, and which had been checked all through the corps areas down to every individual station in the Army, that actually is the plan in which we mobilized. It had many changes, but it was a flexible plan; it had to be, based on our peacetime Regular Army, and National Guard, but when it actually came to the emergency it is a protective mobilization plan under which we mobilized.

Senator BREWSTER. I think you see, Colonel, as you followed through here that the fundamental question with which we right here

are going to be concerned immediately is the question of placing responsibility for the very great increase in cantonment construction costs over the original estimates. Now, whether that was a result of lack of plans or whether it was a result of the haste with which it had to be carried out is what we are trying earnestly to arrive at, and certainly Congress must take its share of responsibility; we recognize that and we don't want you to pull any punches in that regard; but I think it is also a great service to the country if the whole responsibility in whatever course seems to the layman a rather complicated set-up here is properly placed. Senator Truman and I have been discussing them and of course the first approach, although we have both had a little military experience, is that it is pretty difficult to find what walnut the pea is under, where responsibility was for formulating these plans and then carrying them into effect.

The CHAIRMAN. In the old Army term, it seems to be rather a buck-passing proposition, and we want to put the responsibility where it belongs before we get through. Proceed.

Mr. FULTON. With respect to the—

Colonel CHAMBERLIN (interposing). Could I correct one statement? I am afraid I may have conveyed the idea that we didn't use the P. M. P.¹ I want to indicate that we have used the P. M. P. very closely, but we have had to use those parts of it which were adaptable to the present situation. There were some departures.

Mr. FULTON. And would you agree, I take it, with General Twaddle that a great deal has been saved with respect to at least the mobilization of the men through the planning that had been done under the P. M. P.?

Colonel CHAMBERLIN. If we hadn't had the P. M. P. we would have been a month late in mobilization.

Mr. FULTON. But that would not so much apply to the question of construction of housing, because the plans under the P. M. P. there in effect were largely discarded?

Colonel CHAMBERLIN. Yes, sir; that is correct.

Mr. FULTON. And housing of a different character, partly because of statutory requirements, was substituted?

Colonel CHAMBERLIN. That is right; yes, sir.

Mr. FULTON. In considering the cost of construction, various people have made comparisons with World War cost, which itself was severely criticized as being exorbitant, but in fairness, the construction is of a quite different and more extensive character; is it not?

Colonel CHAMBERLIN. Yes; that is correct. I would say that the buildings that we built during the World War and the ones we are building now do not depart greatly from each other, but the number of buildings differ rather widely, because in the World War most of our training camps were merely hotels, whereas during this present emergency we have to provide for all kinds of things that weren't provided for in the World War camps. For instance, the troops are going to live in these places for a year and are going to train in them. During the World War they merely were mobilized in them and then sent out to the theater of operations, to France. In many cases they didn't even get their equipment in those camps. They were supplied equipment when they got to France.

¹ Protective Mobilization Plan.

Mr. FULTON. The buildings, too, are put on concrete piers instead of on wooden sills. There is other construction of a type that would tend to be more permanent and better than had been done in the World War?

Colonel CHAMBERLIN. Yes. These camps are a considerable improvement over the World War camps.

Mr. FULTON. And certain plumbing facilities are attached to barracks buildings which formerly was not done?

Colonel CHAMBERLIN. That is correct. We give more comfort than they gave in the World War.

Mr. FULTON. Now, I noticed that you said that the work of construction and the responsibility for construction was centralized under the 1938 plan, expanded to include 1940.

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. Would that mean that the Quartermaster General Corps were given the conclusive final say as distinct from the previous final say having been with the corps area commanders?

Colonel CHAMBERLIN. Yes. Of course, if you analyze the 1940 plan, they didn't contemplate building any cantonments in the initiation of the P. M. P. The cantonments would only come later in the augmentations. Now formerly, under the 1932 plan, the corps area commanders were charged with building all shelter for troops in their commands. In this case the corps area commander was charged with providing simple shelter, such as tent camps, mess halls, latrines, and so forth, but the Quartermaster General was responsible for building cantonments or depots, if they had to be built.

Mr. FULTON. Would it be fair to say that under the earlier plans, the corps area commander was responsible, but subject to consultation with the Quartermaster General's Corps?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. But afterward, in the existing camp sites as they have been built, the Quartermaster General has the final say, and that is done after consultation, of course, with the corps area commander.

Colonel CHAMBERLIN. Well, of course, that is not quite an accurate statement of it. Remember, the Quartermaster General is an instrument of the Secretary of War, and therefore he is more or less under the charge of the Chief of Staff. The Chief of Staff represents the line officer, the corps area commander represents the line officer, so so that any action taken by the Quartermaster General is an action of the Chief of Staff—

Mr. FULTON (interposing). Of course, in that sense, any action taken by either is an action of the Chief of Staff.

Colonel CHAMBERLIN. That is correct.

Senator BREWSTER. You said, "more or less"; that the quartermaster was more or less under the Chief of Staff. Now I wish you would elaborate that a little.

Colonel CHAMBERLIN. Well, I will say that the Quartermaster General—everything leads up, of course, to the Secretary of War. The Chief of Staff is the senior member of the General Staff. The Quartermaster General, in theory, reports directly to the Secretary of War.

Senator BREWSTER. He doesn't go through the Chief of Staff?

Colonel CHAMBERLIN. According to law he doesn't have to, I don't believe. I think I am correct in this statement, Senator.

Senator BREWSTER. Probably General Somervell——

Colonel CHAMBERLIN (interposing). But in practice, of course, practically all matters that go to the Secretary of War go through the Chief of Staff.

Senator BREWSTER. Well, probably one of the others can clarify that.

Colonel WILSON. The Secretary of War, the Commander in Chief, commands the Army. Now, he has as his advisers a General Staff, the chief of which is the Chief of Staff. In other words, he is the Chief of the General Staff. He is a military adviser, the chief military adviser, of the Secretary of War.

Senator BREWSTER. The question, Colonel, is whether the Quartermaster General clears through the Chief of staff. What is that situation?

General SOMERVELL. The Quartermaster General clears through the Chief of Staff on certain subjects and through the Under Secretary of War on others. In matters of contracts and procurement and things of that kind the Quartermaster General clears through the Under Secretary of War.

Senator BREWSTER. That doesn't go to the Chief of Staff at all?

General SOMERVELL. That is correct, and matters of command, he clears through the Chief of Staff.

Senator BREWSTER. There would be some twilight zones where it might be difficult to divide or differentiate.

General SOMERVELL. Yes, sir.

Senator BREWSTER. The Under Secretary's authority in these matters is primarily statutory; is it not, about construction, and so on?

General SOMERVELL. Yes, sir.

Senator BREWSTER. And the Quartermaster General acts as his agent in carrying out that statutory responsibility of the Secretary and Under Secretary now?

General SOMERVELL. That is correct.

Mr. FULTON. Then with respect to camps, while the Quartermaster General would have to consult, in order to get the military viewpoint, the corps area commander, he would in the last analysis build the camp where the Quartermaster General concluded it should be built. Is that right?

Colonel CHAMBERLIN. Generally the location is selected by the Secretary of War or the Chief of Staff.

Mr. FULTON. But that is to the camp, as such, but what I am talking about is the buildings and facilities.

Colonel CHAMBERLIN. Yes, that is correct. The Quartermaster General is charged with the construction of the camp.

Mr. FULTON. And he is in charge of determining where those buildings will be located if there is a difference between him and, say, the camp's corps area commander.

Colonel CHAMBERLIN. If there is a difference between the corps area commander and the Quartermaster General, of course it would have to be decided by authority of the Secretary of War.

Mr. FULTON. It would have to go to the Secretary of War?

Colonel CHAMBERLIN. It might not go to him personally. It depends on the seriousness of the difference. Generally, in practice those matters would be settled by the Chief of Staff.

Mr. FULTON. And have there been such differences?

Colonel CHAMBERLIN. I believe not.

Colonel WILSON. We have had one case at Camp Nacimientto, Calif. There was a difference of opinion.

Colonel CHAMBERLIN. But that difference of opinion wasn't between the Quartermaster General and the corps area commander—the difference of opinion was between the corps area commander and the Chief of Infantry. So in that case it was decided by the Chief of Staff.

Mr. FULTON. With respect to Fort Meade, where we have been told there were advantages of building in one area and advantages in military training in another area, was there any difference between the Quartermaster General's Corps and the corps area commander which had to be settled by the Chief of Staff.

Colonel CHAMBERLIN. Well, I understand there has been. I haven't had personal knowledge of it. I understand that there was some difference between the corps area commander and the representative of the Quartermaster General on the ground, but I also understand that the difference was composed locally in accordance with the corps area commander's wish. It did not reach the General Staff.

Mr. FULTON. The Engineering Corps is the corps that has a great many men who have had extended experience, as I understand it, in construction work of various kinds. Would the Quartermaster General's Corps likewise have had the same general construction experience that the Engineering Corps has had?

Colonel CHAMBERLIN. Well, I think that the type of construction experience is considerably different, but both of them had quite a bit of experience. For instance, the Chief of the Engineers has had, as you all know, very extensive experience in rivers and harbors work and in problems relating to that type of construction; and the Quartermaster General's construction branch has military housing construction. This office has been primarily engaged in very extensive experience, over a period, ever since the Army has been created, in the military construction line.

Mr. FULTON. In any event, the construction of housing, I believe, had been vested by statute in the Quartermaster General?

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. Back in 1920?

Colonel CHAMBERLIN. The National Defense Act.

Mr. FULTON. With respect to the Engineering Corps, however, have you used their experience in camp construction for any particular types of construction?

Colonel CHAMBERLIN. We have.

Mr. FULTON. Would you tell us something of the extent to which they have been involved?

Colonel CHAMBERLIN. As the program progressed and its vast nature became fully realized, it became evident to the War Department that every advantage must be taken, of all existing agencies in the War Department to assist in this vast program. The construction incident to the increase in the Air Corps was therefore transferred to the Chief of Engineers who had in being the great rivers and harbors organization ready to assist in the program. Of the total funds appropriated in the fiscal year 1941 for military construction, the Secretary of War has allocated approximately \$1,025,000,000 to the Quartermaster General and \$710,000,000 to the Chief of Engineers.

Mr. FULTON. Of course, that total of 1,000,000,000—

Colonel WILSON (interposing). Pardon me. I think it is a good thing to point out at this time that the War Department has also detailed engineers to head up the Construction Division of the Quartermaster General's office, the chief of whom is General Somervell.

Mr. FULTON. So that the experience which the Engineering Corps had is being made use of today.

Colonel CHAMBERLIN. To the maximum.

Mr. FULTON. The total amount there, of \$1,735,000,000, would include much more than just the construction of cantonments?

Colonel CHAMBERLIN. That is correct; it includes the construction of Atlantic bases, the construction for housing supplies, but it does not include the construction of factories and things of that sort.

Mr. FULTON. Would it include the cost of the land on projects where land is being acquired?

Colonel CHAMBERLIN. Not as such. Now, it includes it incidentally because most all of the construction appropriations permit the expenditure of construction funds in this emergency for land acquisition where it could not be foreseen that the land would be required. For instance, when we go into the site, sometimes we find that we have to buy rights-of-way for a sewerage line, or a water line, and we can't anticipate those requirements in all their detail, so that the Congress has broadened the scope of the construction funds sufficiently to permit the purchase of lands out of those funds where necessary.

Mr. FULTON. That would be where necessary and would not ordinarily include the cost of land that was being added to, say, a camp such as Fort Meade, for purposes other than building construction.

Colonel CHAMBERLIN. No. When we want a large reservation, we make a separate request for that, but the last two appropriations that have come in have included the cost of the extra land within the construction funds, so that you can't say that this entire amount will be expended for construction. There may be several hundred thousand dollars in this for the purchase of land, but the land part of it would be rather insignificant.

Mr. FULTON. What I had in mind, though, was when we referred to a project such as that at Fort Meade, as costing twenty-one million-odd dollars, we are not including then the land at Fort Meade or the acquisition of the land that is being acquired for training.

Colonel CHAMBERLIN. The appropriation for the land at Meade is a separate appropriation, not included in the construction program.

Mr. FULTON. In connection with this Construction Progress Report No. 15, the figures therein contained are figures for construction as distinct from the land in the cantonments?

Colonel CHAMBERLIN. That is correct. There is another compilation which the Quartermaster General has which is called the Real Estate Branch Progress Chart. It has similar data with regard to the cost of land.

The CHAIRMAN. May copies of that be furnished to the members of the committee?

(The documents referred to were marked "Exhibits Nos. 32 and 33" and are on file with the committee.)

Mr. FULTON. Taking up this construction report, I note that you have two general summaries, one entitled "All Emergency Projects,"¹

¹ Exhibit No. 32, p. 6.

and one entitled, "All Troop Housing." ¹ The first and the second seem to refer roughly to the same number of men, approximately. Could you tell us the difference between the summary figures on page 6 and the summary figures on page 8?

Colonel CHAMBERLIN. I wonder if I might refer those questions to General Somervell, because this compilation is made up in his office, and I am afraid that I wouldn't give as good an answer as he might on such a question.

Mr. FULTON. Could you explain that, General Somervell?

General SOMERVELL. The emergency program includes all the projects, and the housing program includes the housing projects, which is a part of the total program.

Mr. FULTON. By "all projects" do you mean all projects relating to camps or all projects of whatever kind and nature?

General SOMERVELL. The second is correct. By "all projects" I mean all projects—all, including camps, hospitals, manufacturing plants, storage warehouses, depots, and miscellaneous plants.

Mr. FULTON. And that is indicated somewhat where you refer to capacity. On the one with respect to troop housing, you don't refer to beds in general hospitals or to storage.

General SOMERVELL. That is right.

Mr. FULTON. So the distinction would roughly be whether you have all facilities including storage, hospitals, warehouses, and otherwise, or whether you would just have housing as such.

General SOMERVELL. Yes, sir. Will you turn to the first page, the table of contents? This shows the divisions in which the report is made. The first division is all emergency projects. Then under that we have troop housing, general hospitals, ordnance manufacturing plant, chemical warfare plants, ordnance, ammunition, and storage depots, other storage depots, miscellaneous projects, and other construction. Under troop housing, we have a further subdivision for all troop housing, then camps and cantonments, reception centers, replacement training centers, harbor defense projects, Air Corps projects. That is the general set-up of the reports.

Mr. FULTON. Would you say that the all-inclusive summary on page 6 would be roughly comparable to an existing city, except of course that the city would have the factories and industries for the employment of the men?

General SOMERVELL. That is right.

Mr. FULTON. I note that by dividing the one billion——

Senator BREWSTER (interposing). You had better finish with Colonel Chamberlin before you get into that.

Mr. FULTON. I think in general the further questions I had in mind would more properly be questions of General Somervell.

The CHAIRMAN. Go ahead, Senator.

Senator BREWSTER. Colonel Chamberlin, how many officers have you in your immediate division, G-4?

Colonel CHAMBERLIN. I have 13 officers besides myself.

Senator BREWSTER. And are any of them Engineer officers?

Colonel CHAMBERLIN. Yes; I have one lieutenant colonel of Engineers. I have two captains, Reserve officer engineers. I have one civilian engineer and three assistants. I still have one vacancy for an additional civilian engineer. I have had the civilians only 2 to 3 months.

Senator BREWSTER. They have been given to you since the emergency?

Colonel CHAMBERLIN. Yes, sir.

Senator BREWSTER. You are not an Engineer officer yourself?

Colonel CHAMBERLIN. No, sir.

Senator BREWSTER. You are Infantry. Has it been the practice to have a line officer in G-4—your predecessors?

Colonel CHAMBERLIN. Not entirely. General Hartman was up there. The officer that preceded me was an Infantry officer. General Hartman was next in front, and an Ordnance officer was in front of him. That is as far back as I can go.

Senator BREWSTER. You mean General Hartman at one time had your present position?

Colonel CHAMBERLIN. That is correct; yes, sir.

Senator BREWSTER. Would you have information about the distribution of Engineer officers, or would that come from General Somervell?

Colonel CHAMBERLIN. Well, I doubt whether General Somervell can give it. You can give him a chance. But I think we will probably have to get that from the Chief of Engineers.

Senator BREWSTER. He would have that information?

Colonel CHAMBERLIN. Yes, sir; he would have that information. We can get it for you, Senator.

Senator BREWSTER. We will see about that.

Colonel CHAMBERLIN. I can have somebody get it.

Senator BREWSTER. I think it would be interesting to have that allocation of the Engineer officers as to what their distribution has been this last year or two. How many were transferred over to General Somervell, and so on? ¹

Colonel CHAMBERLIN. I think he can tell you how many Engineer officers he has.

Senator BREWSTER. As to how many he took with him?

Colonel CHAMBERLIN. Yes, sir; he can answer that.

Senator BREWSTER. We will take that up in a minute.

Mr. FULTON. Colonel Chamberlin, with respect to Camp Blanding, for example, I thought it might be a help to us if we considered how that site happened to be selected. General Twaddle referred to different sites as being considered, such as Eastport, Whitehouse, Gilmore, Durbin, Greencove, and finally the one that was selected at Kingsley Lake. Did G-4 have photographic surveys of each one of those six sites, and did someone from G-4 go over them from the construction standpoint?

Colonel CHAMBERLIN. Yes, sir; the selection of this camp occurred since I have been in office. I am fairly familiar with the background of it. Gen. Vivian Collins, who was the adjutant general of the State of Florida, made a rather exhaustive survey in the Florida area for a location for a National Guard training center. When the aviation expansion program in 1939 came along, the Navy wanted Jacksonville as a location for one of their air bases, and we had Camp Foster down there, which was used for the National Guard of Florida. The Navy wanted Camp Foster as a part of their development, so the Army had to get out of it. General Collins looked around and examined these various areas that are indicated and recommended Kingsley Lake area.

¹ Under date of June 12, 1941, the War Department submitted lists showing the allocation of engineer officers to various divisions. See appendix, pp. 395-396.

Mr. FULTON. Was that General Carnes you speak of?

Colonel CHAMBERLIN. General Collins.

Mr. FULTON. He was in what way connected with G-4?

Colonel CHAMBERLIN. I do not understand.

Mr. FULTON. What was his official position?

Colonel CHAMBERLIN. He was the adjutant general of the State of Florida. That is not connected with the Federal Government at all. That is a State office.

Senator BREWSTER. Why was it decided to shift the divisions from Georgia to Florida?

Colonel CHAMBERLIN. What was that, sir?

Senator BREWSTER. Why was it decided to shift the divisions from Georgia to Florida. Originally, under the 1938 plan, the division was going into Georgia. Then subsequently six sites in Florida were surveyed, but apparently no sites in any other State. Apparently, suddenly there was a decision that the climate or topography of Florida was to be considered alone.

Colonel CHAMBERLIN. Well, Senator, I am afraid I made myself misunderstood if that is your impression. This site was selected only for training of the Florida National Guard.

Senator BREWSTER. Where was the Thirty-first Division allocated prior to 1939?

Colonel WILSON. Let Colonel Hasbrouck answer that question, please.

TESTIMONY OF LT. COL. R. W. HASBROUCK

Colonel HASBROUCK. Fort Benning, Ga.

Senator BREWSTER. So that your statement is a little inaccurate.

Colonel CHAMBERLIN. No, sir; I think we are talking about two different periods of time, Senator.

Senator BREWSTER. Under the plan submitted here by General Twaddle, the Thirty-first Division, which includes the Florida National Guard, does it not?

Colonel HASBROUCK. I think I can clear this up, Senator. The Thirty-first Division was allocated to Fort Benning for mobilization, but in peacetime training that took place every year down in Florida, the Florida element trained in Florida at Camp Foster except certain artillery that came up from Florida.

Senator BREWSTER. You slid over that Florida element rather rapidly. It has been the practice to train the Florida Guard in Florida. That is customary. But when you provided for mobilization, you provided for it in Fort Benning?

Colonel HASBROUCK. That is right, sir.

Senator BREWSTER. Now in 1939 or early 1940 that was changed, and it was provided that the Thirty-first Division should be mobilized in Florida?

Colonel HASBROUCK. That is correct.

Senator BREWSTER. That is right. Now, what I want to know is why in considering sites for the mobilization of the Thirty-first Division which included troops from several Southern States, suddenly the survey took in only Florida sites, where previously it had been contemplated that you would have a Georgia location. That is what I want to know.

Colonel CHAMBERLIN. This survey, Senator Brewster, was made in 1939.

Senator BREWSTER. Yes.

Colonel CHAMBERLIN. And at that time this camp was selected only for training of the National Guard of Florida. Now, in 1940 it was decided to utilize that camp for the concentration of the Thirty-first Division. There was at that time no further survey made of any sites.

Senator BREWSTER. Then when the change was made in the site of the Thirty-first Division in March 1940 no other site was considered?

Colonel CHAMBERLIN. That is correct.

Colonel WILSON. But there is one point there, Senator. The controlling reason, or at least one of them, why they moved that division, that is the mobilization point of that division, from Fort Benning, Ga., where it was originally scheduled to go, to Camp Blanding, was that they decided to organize a mechanized, an armored division at Camp Benning—Fort Benning; that being one of our largest military reservations, and the seat of the Infantry School, it was decided that that was one of the places where a new armored division was to be organized, and in order not to put too great a load on Fort Benning it was then decided to put that particular division at some other site.

Senator BREWSTER. We have had that, I think, testified to, that you had to give up Camp Benning; but what I am still addressing myself to is why there was apparently no consideration of any sites outside of Florida for the location of the Thirty-first Division.

Colonel HASBROUCK. Florida had to be paid back. Foster was taken away from them. It was their State camp where their State troops went. This was before all this mobilization started and the considerations involved were the paying back of Florida for the loss of Camp Foster.

Senator BREWSTER. Well, I don't understand that Florida had ever had a division.

Colonel HASBROUCK. They hadn't totally; no, sir.

Senator BREWSTER. Didn't you a little overpay Florida?

Colonel HASBROUCK. No, sir; I don't think so. They had a State camp.

Senator BREWSTER. They had a camp for National Guard.

Colonel HASBROUCK. Given to the Navy.

Senator BREWSTER. Then you gave them a camp for a division.

Colonel HASBROUCK. It so happened we gave them—the camp that they got was 28,000 acres. It happened that adjacent to it was 100,000 acres of the Penney estate which was available at low cost and that was what influenced putting two divisions down there, the ready availability of additional land on which they could train.

Senator BREWSTER. I am not quarreling with the decision at all. I was simply undertaking to develop what consideration was given to the various possible sites, and I was startled when I heard this consideration of six alone in Florida. I understand it now that you are thinking only of National Guard. Now when you, however, transfer a division in there, you are taking a considerable further step in advance. Now I understand you, Colonel, when that decision was made to put the Thirty-first Division in Blanding, no other site was

considered outside the State of Florida by any of the survey officers; is that correct?

Colonel CHAMBERLIN. I don't think it can be stated quite that abruptly, Senator, because we had many divisions put in the Fourth Corps Area. I think altogether there are about 10 or 12, at least 10 or 12 divisions.

Colonel HASBROUCK. Other sites were considered; Shelby, for instance, was considered for the Thirty-first.

Senator BREWSTER. The testimony hitherto has not shown that. That is what I am interested in.

Colonel HASBROUCK. Other sites were considered; I can state that definitely.

Mr. FULTON. Then, Colonel Chamberlin, I assume that you will add to the six sites which General Twaddle told us were considered for Camp Blanding, the other sites in the other Southern States which were likewise considered.

Colonel CHAMBERLIN. Well, I can't agree to that yet, because Camp Blanding in 1939, which was 12 months before the present mobilization, was acquired for the purpose of a National Guard brigade camp for the State of Florida. Now, later, since there was a State reservation there which was available and had 27,000 acres in it, the War Department made their minds up to utilize that for a National Guard division, and later for two National Guard divisions.

Mr. FULTON. Perhaps it is fairer to go back to 1939 and proceed from there.

Colonel CHAMBERLIN. Yes, sir.

Mr. FULTON. As you said, General Collins, a representative of the Florida State government and not of the Army, made a survey of what he considered to be suitable sites for the Florida National Guard brigade.

Colonel CHAMBERLIN. That is correct.

Mr. FULTON. And these six sites which were given us by General Twaddle were the six that General Collins of Florida examined?

Colonel CHAMBERLIN. Yes, sir. He presented those for examination to a Federal board of officers.

Mr. FULTON. And as a result of that presentation, what happened?

Colonel CHAMBERLIN. A board of officers comprising two officers, one a field artillery officer and one a general staff officer from the Fourth Corps Area Headquarters in Atlanta; and an officer of the War Department, of the General Staff, G-4 Division, was sent down to Florida on September 2—about September 2, 1939—and they in turn inspected these six sites that were presented by the adjutant general of the State of Florida, and it was as a result of that inspection that the Kingsley Lake area was selected as the training area for a brigade of the Florida National Guard.¹

Mr. FULTON. That was about the time of the declaration of war by France and England in Europe?

Colonel CHAMBERLIN. Just about, yes, sir. That was on September 2, 1939, which shows the signature of these officers as approving the site of Kingsley Lake.

Mr. FULTON. Now, were any of those officers on that board men who had had engineering experience or construction experience?

¹ This information is included in Exhibit No. 24 which is on file with the committee.

Colonel CHAMBERLIN. I can't state positively what experience they had, but I would say that they certainly weren't officers who had had any extensive experience because they are all line officers.

Mr. FULTON. And with respect to those, did they make a personal tour of each of the areas?

Colonel CHAMBERLIN. No. Some of the areas were inspected by air only and found to be swamps, so that they didn't go down and inspect them any further. They inspected, I think, four on the ground.

Mr. FULTON. And they also had the regular topographical maps, I suppose.

Colonel CHAMBERLIN. I believe not. I don't think there was a topographical map of those areas. They may have had some kind of map because the report indicates that there was a map.

Mr. FULTON. I thought the Army had had prepared a topographical map of the entire Nation, but that isn't yet complete in all areas?

Colonel CHAMBERLIN. That is the Geological Survey map.

Mr. FULTON. Was that available for Florida?

Colonel CHAMBERLIN. I can't state positively.

Mr. FULTON. Could you find out whether they looked at that?

Colonel CHAMBERLIN. I can find out, yes, sir; because one of these officers I know is on duty down at Fort Bliss at the present time.

Mr. FULTON. Could we have one of the topographical surveys for the Camp Blanding area to see whether that indicated swamp or the presence of extensive water?

Colonel CHAMBERLIN. I think undoubtedly there is a very good map available at the present time.

Mr. FULTON. I mean also at the time that they looked at the area; what did they have then and did they look at the map which the Geological Survey had made?

Colonel CHAMBERLIN. Yes, sir; I will see if we can locate this map. It was a part of this report, and it is possible that that map may be on file in the War Department.¹

Senator BREWSTER. Was it a fact that much of that area or a substantial portion of that area was 15 to 30 feet below the lake level there at Kingsley Lake?

Colonel CHAMBERLIN. I don't know that I can tell you that. I think perhaps General Somervell can. I haven't personally been down there, but I know that General Somervell has, and undoubtedly he can tell you something of the contour of the country, the configuration.

Senator BREWSTER. I was wondering whether that was what you call a swamp if it was 15 to 30 feet below the lake level.

Colonel CHAMBERLIN. The reports all indicate that the ground was not swampy and could be very easily drained.

Senator BREWSTER. The reports all indicate that?

Colonel CHAMBERLIN. Indicate that; yes, sir.

Senator BREWSTER. And General Somervell will have more accurate information as to whether or not he found that to be the fact?

Colonel CHAMBERLIN. Yes, sir.

Mr. FULTON. And this Geological Survey map which we were referring to has, I believe, 20-foot contour marks on it so that by looking at

¹ A map of Camp Blanding, dated February 5, 1940, is included in Exhibit No. 24, on file with the committee.

it, it probably would indicate whether the level was above or below the level of the lake.

Colonel CHAMBERLIN. I think that is correct, if there is a map of that particular area. All areas haven't been mapped, I know that.

Mr. FULTON. Have you found in general that those topographical maps are reliable?

Colonel CHAMBERLIN. They cannot be considered reliable for construction work; I mean for very close, accurate work.

Mr. FULTON. How about contour levels, and so on; are they generally accurate?

Colonel CHAMBERLIN. On that type of ground they ought to be fairly accurate. Colonel Searcy informs me that they are 50-foot contour intervals. That is the reason I asked the question. I was a little in doubt about their being a 20-foot contour map.

Mr. FULTON. It is an inch to a mile and 20-foot contours would be a little difficult.

Colonel CHAMBERLIN. I rather expect that the contour intervals would be 50 rather than 20.

Colonel SEARCY. Fifty-foot contours and an inch to 2 miles.

Mr. FULTON. Well, Colonel Chamberlin, did they take any core samples before selecting the site? In other words, did they take a sample of the earth to find out whether they would reach water in 5 feet, or something of that kind?

Colonel CHAMBERLIN. There is nothing indicated in the board reports.

Mr. FULTON. Did they consult the nearest agricultural college as to whatever data it had on that area and water conditions in general?

Colonel CHAMBERLIN. I can't state positively. There is nothing in the report which indicates that they had consulted them.

Mr. FULTON. Did they make any tests that you know of or that are indicated in that report to indicate what unusual difficulties they had had in construction, if any?

Colonel CHAMBERLIN. There were no difficulties in construction indicated. I have here copies of these reports which I can submit to the committee, and among the other documents a letter of August 23, 1940, from the Commanding General of the Fourth Corps Area, which was written as a result of inspections made by officers of his headquarters.¹

The CHAIRMAN. We will ask you to submit those reports, Colonel, together with the Fourth Corps Area commander's comment.

Colonel CHAMBERLIN. All right, sir; I have them right here.

(The document referred to was marked "Exhibit No. 34" and is on file with the committee.)

Mr. FULTON. In 1940 when the camp was selected as the site for a division and for the construction of that cantonment, was there a further inspection made and were these various things that I have indicated, such as core samples of the ground, and so on, obtained before that was definitely selected?

Colonel CHAMBERLIN. I believe not.

Mr. FULTON. And was the Quartermaster General's staff asked to analyze it from the construction standpoint, availability of labor, and otherwise to see whether they would conclude that it was a

¹ Included, under Tab H, in Exhibit No. 24, on file with the committee.

suitable place for the erection of a large city of 50 or 60 thousand people?

Colonel CHAMBERLIN. Yes, sir; they were consulted. I would like to outline what happened in general. The old mobilization tables, of course, were revised by the Assistant Chief of Staff, G-3, to keep abreast of the then situation. These tables, as soon as supplied to the Assistant Chief of Staff, G-4, were broken down by posts. We realized at that time that it would be necessary to attempt to find the load that would be placed on these various stations in order to get some visualization of the character of the utilities that would have to be placed in them, then to test them out to find whether the potential facilities could be afforded in the locality. After these tables were broken down into load charts, copies were furnished the Quartermaster General and a conference was held in which all interested officers and key men of the Construction Division of the Quartermaster General's office attended. Each post was gone over hurriedly to point out the various things that should be checked, to find out whether there was anything wrong with this plan.

Mr. FULTON. About how long?

Colonel CHAMBERLIN. The Quartermaster General was then given about a week to check in detail into these various posts to find out whether these loads could be accommodated. After the week had gone by another conference was called at which the same representatives were present, and we again went over every one of these stations. Some that were doubtful were thrown out. The loads on other stations were modified when we found that we were getting pretty close to the potential limit, or the limit of potential possibility of that particular site. That was the atmosphere in which the thing was tackled in June or July.

Senator BREWSTER. June 1940?

Colonel CHAMBERLIN. I can't recall the exact date.

Senator BREWSTER. That was still under the old protective mobilization plan?

Colonel CHAMBERLIN. No, sir; that was under the new one.

Senator BREWSTER. When you say, "new one"——

Colonel CHAMBERLIN (interposing). I mean the mobilization that has now been almost completed.

Senator BREWSTER. You mean to say that in June or July 1940, you contemplated——

Colonel CHAMBERLIN (interposing). Colonel Searcy says it was early August.

Senator BREWSTER. That in early August you contemplated the possible mobilization of a 1,400,000 men?

Colonel CHAMBERLIN. Yes, sir.

Senator BREWSTER. For peacetime training?

Colonel CHAMBERLIN. That is correct.

Senator BREWSTER. Well, that is considerably at variance, I think, with all we have heard hitherto; isn't that so, Colonel Wilson?

Colonel WILSON. I don't believe so.

Senator BREWSTER. I thought they said that they never up to September contemplated the possibility of any such action.

Colonel HASBROUCK. The War Department started its plans immediately the selective service bill was introduced or when it was first considered by Congress.

Senator BREWSTER. I have been inquiring ever since this thing started—when was that Selective Service Act introduced?

Colonel HASBROUCK. I don't remember the exact date.

Senator BREWSTER. Wasn't it in June?¹

Colonel HASBROUCK. I don't think it was in June, sir.

Senator BREWSTER. I think you will find it was in June, although I think you may be able to say that it wasn't seriously considered until after a couple of conventions were held in early July. I think that is when they began to really move seriously. But if at that time you began to envision the possibility of this peacetime mobilization, I think it is of very great importance. I don't think we have had one word of evidence hitherto that that was the fact.

Colonel WILSON. That is a fact. Not only did the War Department figure that the Selective Service Act would pass; they were banking on it.

Senator BREWSTER. From a time soon after its introduction you began to see the possibility that the country was getting aroused?

Colonel WILSON. Not only that, but before it was being introduced. When it was first being talked about the War Department started in right away.

Senator BREWSTER. Then you would raise that time back to sometime in June, would you, Colonel Wilson?

Colonel WILSON. Yes, sir.

Senator BREWSTER. That they then began to see the possibilities of a peacetime mobilization of a million or more men.

Colonel WILSON. Yes, sir.

Senator BREWSTER. I think that is extremely important to establish because from the time that became established of course there was a very considerable responsibility in getting ready for that eventuality.

Colonel WILSON. The War Department was anticipating that the Selective Service Act would pass from the very first instant that it was started in the committee, and the Military Training Camps Association became interested in it. We knew that it would be introduced into the Congress and figured that it would pass and started plans accordingly.

Colonel CHAMBERLIN. I might say, Senator, looking back over the dates of our policies here, I find that July 1, 1940, we ordered all mess halls that were to be built to be built for war strength units. In other words, we anticipated at that time that instead of having peace units we would have war strength units. I can safely say that this planning must have started in G-3 early in July—their first mobilization tables were put out on August 14.

Senator BREWSTER. Yes.

Colonel CHAMBERLIN. Now, those tables took at least a month to prepare, so that they were started early in July.

Senator BREWSTER. Yes.

Colonel CHAMBERLIN. And before they started they probably were thinking about them for a week or so. So I think that the planning of the War Department for this particular mobilization as it actually occurred must have started sometime in the early part of July.

Senator BREWSTER. Yes. Now, you did not have at that time adequate funds provided to make as detailed studies as are contemplated under the funds now allocated to General Somervell.

¹ The bill was introduced on June 20, 1940.

Colonel CHAMBERLIN. That is correct; we had no money for that purpose.

Senator BREWSTER. There would have been, however, emergency funds that could have been made available for that purpose, would there not?

Colonel CHAMBERLIN. Yes, sir; in fact, we did get some of the President's emergency fund a little later for another purpose.

Senator BREWSTER. Yes; but there were funds floating around at that time which were possible of allocation.

Colonel CHAMBERLIN. I think you could divert some of the funds from other projects.

Senator BREWSTER. Of course, if during some of June, July, and August, early September, the War Department was then setting its whole program toward what it has subsequently developed, it does make the picture very much clearer as to what subsequently ensued; and I gather that General Somervell would perhaps be the one who will deal with that question when he comes to testify as to what had transpired in the matter of actually putting plans on paper and putting the paper onto the ground.

Mr. FULTON. Well, Colonel Chamberlin, back in May or June when it was determined that we would have the Selective Service draft legislation at least presented to Congress, the Quartermaster General's representatives in each of the corps areas were directed to make a study from a construction standpoint of the various areas which the corps area military people thought might prove suitable camps?

Colonel CHAMBERLIN. I can't state just exactly what transpired in the corps area. I know this, that when we did call on the corps area commanders for possible sites, we found that they had done a great deal of advance planning for those particular sites. For instance, we called on the corps area commanders for recommendations as to location for two divisions in the Beauregard area. Those had already been made and were forwarded very promptly from the corps area to the War Department.

Mr. FULTON. I wasn't asking with respect to the recommendation that it was or was not suitable, but to the underlying data. In other words, had the Quartermaster General looked it over from the construction standpoint, or called on a local officer who had had years of experience in the area and had that man make specific written recommendations on each of the several different things that would be involved, such as sewage, water, and electricity, drainage and other things?

Colonel CHAMBERLIN. Well, I feel certain that the corps area commanders when they sent out these men to examine sites, sent out representatives of the various agencies who were interested in those particular localities. Now, in a great many cases we did not receive formal board reports on these sites. They were recommendations from the corps area commanders.

Mr. FULTON. In some cases or in all cases?

Colonel CHAMBERLIN. What is that, sir?

Mr. FULTON. Were they in all cases written?

Colonel CHAMBERLIN. Yes.

Mr. FULTON. So that for each camp you can give us these?

Colonel CHAMBERLIN. They were sent by radio in some cases.

Mr. FULTON. With respect to Camp Blanding, say, we would have the underlying data which would show what consideration was given to drainage, for example?

Colonel CHAMBERLIN. Well, yes. This letter here shows rather a critical inspection of that area for purposes of drainage and sewerage.

Mr. FULTON. I don't mean just a statement for drainage, but I mean a report on drainage. Was there any report on that from the local Quartermaster construction man?

Colonel CHAMBERLIN. I can't tell that. If there was, it was not forwarded to the War Department.

Mr. FULTON. In any event, that would be the function of the corps area commander as distinct from G-4 in Washington?

Colonel CHAMBERLIN. Would you ask that question again, please?

Mr. FULTON. In any event, would that be the function of the corps area commander who makes the recommendations to see to it that there was a sufficient report, a sufficient examination, and not the function of, say, G-4 here?

Colonel CHAMBERLIN. Well, normally when we ask a commander for a recommendation, we must assume that he has taken the necessary steps to assure himself that that recommendation is sound.

Mr. FULTON. Do I understand he has men on the local staff who would be familiar with local problems to a greater extent than the staff here in Washington, I assume?

Colonel CHAMBERLIN. Yes, sir.

Mr. FULTON. That is why you had to make that assumption?

Colonel CHAMBERLIN. We had to make the assumption. I mean with the many duties which befall any officer in the War Department especially during the rush work of the last 8 months, each individual has his particular task and does not attempt to duplicate the work of others. You have to decentralize your effort and trust that the subordinate commander whom you asked for a recommendation will act in good faith.

Mr. FULTON. I wasn't suggesting you should do otherwise. I just wanted to understand what I assumed was the fact, that you do rely on the officers in the field for the detailed information of that character.

Colonel CHAMBERLIN. Yes, sir.

Mr. FULTON. That is all.

The CHAIRMAN. Any questions? Did you have a question, Senator?

Senator BALL. Colonel, as I understand it this Camp Blanding site was chosen first in 1939 as a National Guard brigade training camp.

Colonel CHAMBERLIN. That is correct; yes, sir.

Senator BALL. Was there any contemplation when that selection was made that eventually in putting into effect your mobilization plans it might become advisable to use that as a divisional training camp, at least, inasmuch as you were going to do most of your training in that southern area?

Colonel CHAMBERLIN. I don't believe, Senator, that that was a consideration in the selection of the site. It was, however, believed, as the reports indicated, that it would be suitable for training a division.

Senator BALL. But before that selection for a National Guard brigade camp, as I understand your testimony, the only inspection was made by three line officers?

Colonel CHAMBERLIN. That is correct.

Senator BALL. No inspection was made from here, at least, by an engineer officer who was familiar with the construction problems?

Colonel CHAMBERLIN. No, sir.

Senator BALL. I see.

Colonel CHAMBERLIN. I might say that one of the officers on the board was the Assistant Chief of Staff, G-4, of the Fourth Corps Area and another on the board was from the office of the Assistant Chief of Staff, G-4, of the War Department. The one from the War Department was primarily interested in real estate rather than construction.

Senator BALL. The reason I asked was because they apparently ran into so many construction difficulties down there.

Colonel CHAMBERLIN. I haven't been there but I have talked to many officers about Fort Blanding. I believe that we are unduly concerned about Fort Blanding. I think it is an excellent site. The officers whom I have seen who have been there have indicated that it is well adapted to the purpose for which its selection was made, that is, as a training center for two National Guard divisions. General Embick, the commanding general of the Fourth Corps area at the time, has stated that it is a very fine site.

Senator BALL. Is that primarily because of the large 100,000 acres I think you said, training area that is available adjacent to the camp?

Colonel CHAMBERLIN. Yes, sir.

Senator BALL. You believe that that availability offsets the increased construction costs due to the fact that a large part of the area was pretty swampy?

Colonel CHAMBERLIN. Well, Senator, one of the most difficult problems is to try to evaluate the various factors that go into the selection of a site. You put your finger down any place on the map and select that particular site; and then you put your finger down some place else; you find that one of them is very expensive because of water development; the next one is very expensive because of rail development, the problem of getting a railroad in there. The next one, the road is going to cost you a lot of money. The next one, the terrain is very rolling, it is going to cost a lot of money to grade it. It is practically impossible to get a site where all of those things are just right. In each site you will find there is some very serious disadvantage. There is no such thing as a perfect site.

Now, you take all of those advantages and disadvantages and try to put them together and find out which are the most important. In June of this year when we had to select sites hurriedly for the mobilization of 1,400,000 men, we had to put 2 factors that were paramount on top. The first factor was that we must have ground that we could train troops on; and the second consideration was that we should have that ground readily available so that you could start construction tomorrow. Now, it has been the experience of the War Department when we try to select a site that it will take from 2 to 3 months before you can get on the site if the land has to be purchased or leased. I can state in continuation of what General Twaddle said the other day, to illustrate this point: In general the War Department decided that in order to effectuate a further mobilization, if such mobilization might be required, we should start examining some new sites. We put out instructions in January to examine these sites. At the present moment 10 of the 28 sites seem to be fairly well agreed to. We have

opinions composed on those 10 sites. Now, that is a period of 3 months.

In July, the War Department didn't have 3 months to delay and the situation existing at that time didn't permit it. We would have been seriously condemned if we had failed to take advantage of the sites that we could build on and go ahead. I feel in trying to sum up, that the War Department has done a wonderful job preparing accommodations. I do not believe there is another organization in the United States that could have equaled the performance of the War Department on this problem. Its objective of assembling 1,400,000 men in a year in suitable accommodations has practically been reached, and if we had been too painstaking about all of these many considerations that come into selecting a site, in the situation that confronted the War Department in June, we wouldn't have had our Army mobilized on time.

The CHAIRMAN. Colonel, you say the War Department in June didn't have 3 months. It seems to me that the War Department has had 20 years to get ready for this thing.

Colonel CHAMBERLIN. Well, I don't think that we have had 20 years. I don't believe there has been any time during the last 20 years that the War Department has had money to go into this to the extent necessary to draw detailed plans.

The CHAIRMAN. They didn't have the money, but they had the personnel. They were training reserves. They were training National Guard. They had a mobilization plan. They anticipated this thing in its entirety, because, I am a Reserve officer myself and I have studied it myself; and I know that the War Department has had 20 years in which to prepare these plans. I think that one of the derelict things is that they didn't have concrete plans prepared for the expansion of these posts that could be expanded. There has been an effort to purchase more land at nearly all these posts ever since I can remember. I have been going to them for 20 years myself. There isn't a reason in the world why these plans shouldn't have been almost in concrete form when this thing took place, in my opinion.

Are there any questions?

General Somervell will proceed.

TESTIMONY OF BRIG. GEN. BREHON SOMERVELL, CHIEF, CONSTRUCTION DIVISION, OFFICE OF THE QUARTERMASTER GENERAL, WAR DEPARTMENT

Mr. FULTON. General Somervell, will you tell us something of your past experience and the work that you have done before you took this particular post as Chief of Construction of the Quartermaster General's Division?

General SOMERVELL. Yes, sir. I am a graduate of West Point, assigned to the Corps of Engineers.

Senator BREWSTER. Would you state the year, if you are not too modest?

General SOMERVELL. 1914. I was assigned to the Corps of Engineers on graduation. I went through the customary routine assignments as a lieutenant; served in New England, where I made a map of the New England coast; and then went into the Southwest in the expedition with Villa. After that I went back to the Engineers'

School, from which I was assigned to the Fifteenth Engineers, with which I went abroad. I served in France primarily on construction work for the first year. We went over with the first regiment, after which I was Assistant Chief of Staff, G-4, in charge of supplies and construction in Germany. After which I was Assistant Chief of Staff of the Eighty-ninth Division. I was then assigned to duty as Assistant Chief of Staff of the Army of Occupation. After that I served a number of tours in the office of the Chief of Engineers and as district engineer in various districts of the United States. I served as an assistant to Mr. Walter D. Hines, in making a survey of navigation on the Danube for the League of Nations, and in making a general economic survey of Turkey for the Turkish Government. I served as executive officer of the National Emergency Council, and in various capacities with the W. P. A., principally as administrator in New York City.

Mr. FULTON. And at that time, I believe, General Somervell, you made some study of typical units that might be constructed in connection with camp activities?

General SOMERVELL. Yes, sir.

Mr. FULTON. And that was prior to the emergency, I believe.

General SOMERVELL. Yes, sir. Those activities were for construction in the theater of operations. The way the work in the Army is subdivided is that the Quartermaster has charge of construction in the zone of the interior and the Corps of Engineers has charge of construction in the theater of operations. The plans that were made in New York were for structures in the theater of operations.

Mr. FULTON. And in studying those structures, were you able to arrive at typical lay-outs that should be prepared, that is, say, typical plans for a company or regiment, with the buildings that they would need?

General SOMERVELL. Yes, sir.

Mr. FULTON. And that took some months, I take it?

General SOMERVELL. Yes, sir.

Mr. FULTON. And are those now in use today?

General SOMERVELL. No, sir. They are for the theater of operations, and we haven't any theater of operations at the present time, thank goodness.

Mr. FULTON. Did you study the construction of the World War in camp cantonments with a view of improvements, if any?

General SOMERVELL. I built a good many of the camps and cantonments in the World War; yes, sir.

Mr. FULTON. So you didn't need to study them very well.

General SOMERVELL. I knew their deficiencies; yes, sir.

Mr. FULTON. Would you tell us something in a general way of your present problems and difficulties in camp construction before we start on any specific questions?

General SOMERVELL. We, of course, have a number of problems, sir. I don't think we have a great many difficulties. The present situation can be summed up, I think best by reference to this progress report.¹ You will find on page 10 a table which shows the housing that is required, available and occupied.¹ You will note that on April 15 we had housing available for 1,270,958 troops, and of those accommodations, those necessary for only 735,793 were occupied. In other

¹ Referring to Exhibit No. 32, on file with the committee.

words, there was a surplus of nearly 300,000 available for the occupancy of the troops.

Mr. FULTON. So that you are now past the point of the number, as they come in, having any problem of being housed?

General SOMERVELL. Yes, sir.

Mr. FULTON. I didn't get the exact date that you took over your present position.

General SOMERVELL. December 12.

Mr. FULTON. So that you were not, of course, involved prior to that in the construction plans that had been made?

General SOMERVELL. That is correct.

Mr. FULTON. And I understand you are now studying the possible lay-outs, or at least are getting it under way for 28 camps if, and only if, they have to be built in the future?

General SOMERVELL. There is no definite number of camps, sir. There are actually 28 under consideration. There are no strings tied on the appropriation for planning. We are also using that money for planning storage depots, ports of embarkation, and a number of other possible facilities. In other words, we are trying to prepare plans in such detail as time will permit of any additional installations that may be involved in an expansion of the Army.

Mr. FULTON. And I understood from your earlier testimony before another committee that you expected that in the event such construction had to be undertaken; there could be a saving of many times the cost of the plants?

General SOMERVELL. That is right, sir.

The CHAIRMAN. You made a statement to the Appropriations Committee, didn't you, that if there had been a set of general plans, you would have saved a hundred million dollars on these camps?

General SOMERVELL. You asked a question a minute ago about having 20 years to prepare these plans. As a matter of fact, they have had 200 years.

The CHAIRMAN. But they have had at least 20 since the last emergency.

General SOMERVELL. Yes, sir. Well, we have had 200.

The CHAIRMAN. They had a mobilization plan, they trained us, they trained the National Guard. I don't see why they didn't have it planned.

General SOMERVELL. We have had 200 years to prepare them in, but it was just as impossible to get anyone to give us the money to plan them as it is now to have your enthusiastic support.

Mr. FULTON. General Somervell, at least a part of the high cost, or alleged high cost, of the camps as they now exist would be due to the lack of planning.

General SOMERVELL. A part of it.

Mr. FULTON. At least a hundred million?

General SOMERVELL. Yes, sir. The whole thing is speed, the speed in construction. That is what caused the increase in cost.

Mr. FULTON. And one of the principal reasons that that is the cause of a great increase is the fact that where you do need speed and haven't time to make plans, you have to do things you otherwise wouldn't think of doing.

General SOMERVELL. That is right.

Senator BREWSTER. General, isn't it true—I want to follow this plan question because as you recognize, that is apparently at the base of this problem. The testimony hitherto until this morning has been that there were not plans for peacetime mobilization of 1,400,000 men, or anything like that, prior to September 1940. It has been intimated here now that there was some contemplation of it in June or July, about which I understand one of the other officers will testify.¹ How many officers were there in the service here in Washington prior to this emergency, approximately?

General SOMERVELL. I haven't the faintest idea.

Senator BREWSTER. Well, didn't you have a considerable staff?

General SOMERVELL. Oh, you mean in the Construction Division?

Senator BREWSTER. I mean in all branches here that would be concerned with planning.

General SOMERVELL. I don't know what that was, sir. I haven't any idea. I can find out.

Senator BREWSTER. You precipitated the discussion of policy here with Senator Truman. The evidence hitherto has been that in the first place they couldn't contemplate any peacetime mobilization; in the second place that if they had contemplated it they wouldn't even have dared to talk about it because there would have been such criticism that they were warmongers. Now your approach indicates that it wouldn't have been possible for the officers here to have made these plans, disregarding those other factors.

General SOMERVELL. My approach is, sir, that the officers here couldn't have got the money to have carried out the work. That is item 1. Item 2—

Senator BREWSTER (interposing). Let's see about that. You mean to make such detailed plans as are envisioned in your \$15,000,000.

General SOMERVELL. Yes, sir.

Senator BREWSTER. You do recognize, however, that there were very considerable emergency funds available here in Washington throughout the period of some years that could have been made available.

General SOMERVELL. You mean the President's fund?

Senator BREWSTER. Yes.

General SOMERVELL. I don't know what strings were attached to that.

Senator BREWSTER. It was contemplated you couldn't use it for construction, but I know of no limitations that it couldn't have been used for plans.

General SOMERVELL. Yes, sir.

Senator BREWSTER. We had provided it couldn't be used for military construction. Now, isn't there a considerable field, General, between the specific plans on specific sites and the determination of general plans? Take this question: You are housing 1,400,000 men now, approximately. Aren't 90 percent of those in typical barracks, and so forth—tents or cantonments?

General SOMERVELL. Yes, sir.

Senator BREWSTER. Which follows absolutely a certain scale of construction.

General SOMERVELL. Those plans have been available since 1920.

¹ Testimony of Lt. Col. R. W. Hasbrouck, *infra*, p. 273 et seq.

Senator BREWSTER. Yes; so that those have at all times been kept up to date.

General SOMERVELL. That is right.

Senator BREWSTER. With certain variations, location of latrines, and other matters of that character, so that when we speak of the enormous engineering detail, as a matter of fact with the camps all over this country housing a million men, they are practically one type or two types, let us say.

General SOMERVELL. That is right; yes, sir.

Senator BREWSTER. So that it isn't quite like building an Empire State Building or even the construction of a great dam, where the topography and the facilities are entirely individual.

General SOMERVELL. This is entirely individual, and it is very much like building a great dam. In fact, it is very much more complicated. Now the building designs were made, but in fitting those designs to the ground, sir, you have to design your water supply, your sewerage system, your electrical transmission, your gas transmission, your roads, and your drainage, in fact all of those things that go to make up municipal engineering aside from the buildings themselves. Plans for the buildings were standard.

Senator BREWSTER. Well, when you use the city analogy of housing 65,000 men, that isn't quite a fair analogy when you consider that all of the housing in that is to be more or less of one type.

General SOMERVELL. Well, have you been to Baltimore, sir?

Senator BREWSTER. Yes; I would say there was a considerable variation in that city.

General SOMERVELL. Well, there is in these too, Senator, but these buildings are of the same type buildings. There is no question about that, sir, but there is a certain number of cubic feet in them, and a certain amount of carpenter work and masonry work has to be done whether the designs are different or not. There is no architectural work involved, it is true.

Senator BREWSTER. You heard the earlier evidence of Colonel Chamberlin about this Blanding site, for instance. Don't you think it is rather astounding that no engineer officer was consulted in determining whether or not that was the best site for location and construction?

General SOMERVELL. I am unfamiliar with what happened in the early stages of the planning.

Senator BREWSTER. Would you say that in locating a site and determining whether it was suitable and how the construction could be carried out, that engineering knowledge would be of value?

General SOMERVELL. Oh, yes. You ought to have a complete engineering survey before you start any of these things, but if you have to start them tomorrow you haven't time to do that.

Senator BREWSTER. Remember that on this Blanding site this was picked a year or two ahead.

General SOMERVELL. Yes, sir.

Senator BREWSTER. This was not a rush order. This was done some time ahead, as the Colonel has testified—complete reports on all details made by three line officers.

General SOMERVELL. Yes, sir.

Senator BREWSTER. And that, I think, is significant and possibly regrettable.

General SOMERVELL. Would you like to see the picture of Blanding? You have been down there?

Senator BREWSTER. I don't want to interrupt what Mr. Fulton may have in mind to develop here.

Mr. FULTON. I would rather that you proceed.

Senator BREWSTER. I want to clear this planning here.

General SOMERVELL. I would like for the committee to look at the pictures of Blanding. It is a beautiful site.

Senator BREWSTER. Is it a fact that the area was below the level of the lake?

General SOMERVELL. A portion of it is below lake level. I don't know whether you are familiar with the water situation in Florida. There are two kinds of lakes in Florida. One, which is known as a perched lake and one which is level with the water table. Underlying the whole ridge section of Florida is the stratum of rock known as the Ocala limestone. That rock is the catchment basin for the water supply in northern Florida. On top of that there is sand and a small amount of humus of one kind or another.

As the water works its way down through this Ocala limestone it creates a pocket, and that pocket, as the sand goes down with it, forms a lake. If the sand is permeable, then the level of that lake stands at the level of the water table in the general area. If, on the other hand, there is enough humus in there to seal the sand, then the lake is known as a perched lake. Now this is something on that order.

The way they drain the lakes is to poke a hole through the bottom and let the water run out. You can only do that under circumstances which I have described, such as a perched lake.

The drainage in this case is not very much away from the lake, although when the lake rises above a certain point it overflows through a little bayou that runs out through the back of the camp. It is the ridge and the place where this bayou discharges. Some of that area where the bayou discharges is perfectly good land and perfectly susceptible to development. The truth of the matter is that there has been less yardage moved in Blanding to produce the beautiful pictures that you see there than there has been at Camp Bragg, for example, which is admittedly one of our very best camps.

In other words, because there are a few little pockets around Blanding the place is condemned far beyond what it should be. It in no sense will represent a bad camp. On the other hand I was down there last week and it is developed along lines which will make it a magnificent place.

Senator BREWSTER. And have you made any estimates of what the cost is by reason of these various factors as to drainage and other estimates?

General SOMERVELL. Yes, sir. I think that the drainage offers extra difficulties in laying sewers, water lines, and peculiarities of the soil will probably run around four or five million dollars over what they would have been had that been an ideal site. But I don't know of any ideal site that we have, sir.

Senator BREWSTER. There isn't such a thing. I am addressing myself now to the comparison of these sites which apparently were confined to Florida, as to whether anyone competent to pass on that matter of relative advantages was consulted, and so far we have no evidence that anyone was.

General SOMERVELL. I don't think there was an engineering survey made ahead of them. In fact I know there wasn't.

Senator BREWSTER. That is what disturbs us.

General SOMERVELL. Yes, sir.

Senator BREWSTER. Second, in the actual layout do you recall off-hand the cost of the plumbing and sewerage item, approximately?

General SOMERVELL. No, I don't, sir. I can give you the figure on the utilities complete.

Senator BREWSTER. I would like that.

General SOMERVELL. All right, sir; total utilities, \$7,950,953.

Senator BREWSTER. Now I was very much amazed. I have made three or four visits there myself as a layman, General, and I spent an afternoon with your construction man.

General SOMERVELL. Yes, sir.

Senator BREWSTER. Who made to me the very amazing statement that if the sewage facilities serving the cantonment had been better designed, \$3,000,000 would have been saved in their construction.

General SOMERVELL. That is an amazing statement. I don't think I could go along with that. The whole thing only cost \$3,000,000, so you couldn't have saved all of it.

Senator BREWSTER. That is why I asked you the figure. You said you didn't know.

General SOMERVELL. I know that the sewer system couldn't have cost more than \$3,000,000 because all of the utilities only cost \$7,000,000. That includes the railroads, water supply, roads, electrical installation, and everything else.

Senator BREWSTER. That was concerned with what I think is termed the block system of construction, by which there was a great deal of additional piping required. Are you familiar with that?

General SOMERVELL. Yes, sir.

Senator BREWSTER. Was that an advantageous lay-out?

General SOMERVELL. I haven't gone into that. This is the first time I have had that question raised. I haven't gone into it to any extent. I will do it, though, and give you a report on it.

Senator BREWSTER. Was it a fact, for instance, that in the road lay-out, roads were laid beside each regimental camp instead of in the center between them, where the fire areas were?

General SOMERVELL. I think the road lay-out is all right, sir.

Senator BREWSTER. You do?

General SOMERVELL. Yes, sir.

Senator BREWSTER. You don't think there could have been any economies in that construction?

General SOMERVELL. No. As a matter of fact we still have to build some more roads there.

Senator BREWSTER. Have you the camp right there?

General SOMERVELL. Yes, sir.

Senator BREWSTER. What about these fire areas between the camps?

General SOMERVELL. Firebreaks are required.

Senator BREWSTER. They were required. Now was there a road on each side of the fire break?

General SOMERVELL. Yes, sir.

Senator BREWSTER. Well, was that required?

General SOMERVELL. Yes, sir.

Senator BREWSTER. Why wouldn't one down the center serve?

General SOMERVELL. Oh, you mean if there had been one down the middle?

Senator BREWSTER. One road down the center, instead of one on each side. I was told that would have saved a hundred thousand dollars.

General SOMERVELL. It might, but you still wouldn't have enough roads for the traffic. I don't object to that lay-out, sir.

Senator BREWSTER. You mean that you need a road to serve each one of those regimental areas?

General SOMERVELL. Yes, sir.

Senator BREWSTER. That is pretty amazing, General.

General SOMERVELL. Well, there are about 2,500 people in a regiment; 2,500 people in one of these regiments. They certainly need one road.

Senator BREWSTER. That is all I have to ask.

Mr. FULTON. General Somervell, coming back to this summary of troop housing, I have been using No. 15. I note now you have a new number, 16.¹

General SOMERVELL. We have one every week, sir.

Mr. FULTON. That throws my arithmetic off.

General SOMERVELL. I am sorry, sir.

Mr. FULTON. I have added them all over again. I know there is a wide variation in the individual camps between the cost per man.

General SOMERVELL. That is right, sir.

Mr. FULTON. And you take a camp like Fort Sill, apparently that is the cheapest of the large camps that you have. You only have \$210 for each man there. But looking at a camp like Polk in Louisiana you find that it runs \$1,326.²

General SOMERVELL. There is something wrong with your arithmetic, I think.

Mr. FULTON. There may be, but I thought the cost was \$18,000,000 and your troops were 13,581.

General SOMERVELL. May I just look at this a second?

Mr. FULTON. Will you look at page 19 of your No. 15? Let's take 16.

General SOMERVELL. Fort Sill didn't represent a complete camp construction. There was already a camp there, and what this was was the additional facilities necessary to bring the existing facilities up to the number and amount required for the troops which were put in there. Furthermore, it was a very temporary kind of camp, the Forty-fifth Division being moved out of Sill down to Abilene during the spring.

Mr. FULTON. That would mean generally, then, with respect to all these figures that they include all of the housing that you had available there before?

General SOMERVELL. Oh, yes; and the utilities.

Mr. FULTON. So that if we take a camp like Sill or Knox—take Knox, for example, where you have a \$908 cost—we find that the cost is really much higher because there was some original construction there.³

¹ Construction Progress Report No. 16, entered in the record as Exhibit No. 32 and on file with the committee.

² Ibid, p. 19.

³ Idem.

General SOMERVELL. That is right.

Mr. FULTON. So that these average figures are way too low for all of the permanent posts?

General SOMERVELL. The average figures don't mean very much except to give you an over-all picture of the cost.

Mr. FULTON. Is there any particular reason why Camp Polk should have run \$1,300?

General SOMERVELL. Yes, sir; that is an armored division. The facilities that have to be provided for the armored division are much more spread out than they are for the ordinary triangular or square division. You have to provide a good many more roads, gun sheds, and vehicle sheds, machine shops and things of that kind. In addition to that Camp Polk is in a section of the country where you have to provide excellent roads, because you have very heavy rains, and it is a kind of gumbo soil. In other words, we have high-type roads in Camp Polk.

Mr. FULTON. Why would they pick gumbo soil for an armored division which would be especially heavy in its requirements?

General SOMERVELL. Unfortunately what we are trying to do is to train an Army. In other words, not to find hotels for these soldiers.

Mr. FULTON. Yes; but—

General SOMERVELL (interposing). What we have got to do is to put the troops in the place where we can train them in the unit as the Army hopes to use them. Now at Camp Polk there are also two other camps, Camp Claiborne and Camp Livingston, where they have two of the foot divisions. Now we want to train those three divisions as a unit, and if you have troops in Louisiana anywhere, you have got to have that kind of soil. If you have them in Texas you have got to have that kind of soil.

Mr. FULTON. It just didn't seem quite right that we should first select an area because it did have a lot of mud, and then build the roads at a greater expense in order to get away from that, if we weren't trying to avoid that condition.

General SOMERVELL. I have seen a lot of construction jobs in my time, but I have never seen but one that didn't have any mud.

Mr. FULTON. That is probably true. I take it you did have more mud than usual at Camp Polk?

General SOMERVELL. It is pretty muddy.

Mr. FULTON. What kinds of roads are you putting in there?

General SOMERVELL. Concrete.

Mr. FULTON. It would be actually the concrete roads that make the extra cost?

General SOMERVELL. No; that is part of it, and then the fact that the camp is spread out more. That means longer water lines, longer sewer lines, longer roads, as well as better roads. We have gas in there, which increases the investment. It will decrease the overall expense of the camp, but increases the original investment. And the extra machine shops and gun sheds and things of that kind bring the cost up.

Mr. FULTON. Would that cost be included in what you call troop housing?

General SOMERVELL. Yes, sir; all under troop housing.

Mr. FULTON. With reference to my arithmetic, though, I think it was correct, wasn't it? It is \$1,300?

General SOMERVELL. That part is all right, but Sill is off.

Mr. FULTON. Well, let's look at that.

General SOMERVELL. That is all the cost, but I mean that isn't the total cost of the troop housing.

Mr. FULTON. I see, but that would be the cost you have reported in this particular manual?

General SOMERVELL. Yes, sir.

The CHAIRMAN. Gentlemen of the committee, we have been running straight since 10:30. It is 1 o'clock now, and Colonel Hasbrouck, I believe, wanted to make a statement to correct something that he thought was erroneous in the record. We will excuse you, General, until Monday or tomorrow if we meet tomorrow.

General SOMERVELL. Can it be tomorrow, sir?

The CHAIRMAN. That all depends. We have another meeting called for tomorrow, and that is the reason I was saying Monday.

Senator BREWSTER. Are you tied up Monday? Is that the difficulty?

General SOMERVELL. Yes; I was told to make a trip with the Secretary to look at some munitions plants and won't be back until next Thursday.

The CHAIRMAN. We will let you know.

Senator BREWSTER. We certainly don't want to interfere with dirt flying. We will accommodate you. We want Hasbrouck.

TESTIMONY OF LT. COL. R. W. HASBROUCK—Resumed

Senator BREWSTER. Colonel Hasbrouck, I would like to ask you about this question of plans formulated, in your knowledge, during June and July 1940.

Colonel HASBROUCK. The plan for the mobilization of the National Guard wherein it differed from the protective mobilization plan was completed and disseminated to all concerned on July 31 of last year.

Senator BREWSTER. 1940?

Colonel HASBROUCK. 1940. It was sent out at that time to all corps area and Army commanders for their remarks and recommendations.

Senator BREWSTER. And that is the one which has actually been put in operation?

Colonel HASBROUCK. With some variations due to the fact that certain units were converted after that date to units of other types, such as infantry regiments being converted to antiaircraft. The plan for the selective service was completed and sent out for remarks and recommendations by interested subordinate commanders on August 14. That plan has undergone some change too, but it was substantially completed at that time and has been put into effect very much as it appeared at that time.

Senator BREWSTER. That must have been under study for at least 2 to 3 months before that time.

Colonel HASBROUCK. Yes; it had been under study for several months at least, probably about 2½ months. Of course, it followed mainly the troop bases set up by the protective mobilization plan. We utilized the same training points wherever it was practicable to do so, but as was explained by General Twaddle, certain changes took

place which required a deviation from the protective mobilization plan in some aspects.

The CHAIRMAN. Any questions?

Senator MEAD. Mr. Chairman, with reference to plans and criticism directed at the Army for not having these plans available, it brings to my mind one of the weaknesses of a democracy. I can see where both the Army and those that criticize the Army are correct. For instance, I made a study of the debates on the military and naval appropriation bill from the end of World War I to the beginning of this World War II. I thought I would make political use of it in the campaign, but after studying it I found that it would be just as embarrassing to me as it would to the opposition. But in it I learned that some of the leaders—and by the way, we must have in mind that it is necessary for you boys to go to the Budget to prove to them that you need every dollar and give them the purposes for which that dollar would be used; you must come before the subcommittees of the various committees handling appropriations in the House and Senate and prove to them that you are going to use this money—and some critic of the Army raised the point that we have now, he said with a great deal of satisfaction, reduced the Army to a mere police force even before we have attained agreement to follow our example from the military nations of the world. I learned in reading the debates that the leaders in the House and Senate boasted of the fact that we destroyed a very large element of our Navy. So I sympathize with you for not having plans in peacetime when pacifism sweeps a democracy, because we need those plans when the democracy begins to show its desire for military preparedness.

But I can see that the democracy of the past will be the democracy of the future, and I can see where there is some good in that theory of government, because why have an Army if we can't suddenly and in a big way have this rapid-fire expansion? And if it costs a little more it may be an economy, because we save by pacifism over a period of years. Now it probably would be better for our democracy if we had plans and specifications and a graduate school for the study of modern methods of warfare and if we appropriated liberally for them. But in view of the fact that we haven't done that and have saved all this money, it probably is good exercise and good training to summon the military leaders of the country and say, "Go and do this job quick," because that characterized the democracy in the World War and it won the war. So I really feel sympathetic for you, and yet I believe there is some justification for criticism, but it is the functioning of a democracy and you can't help it.

Now I know that if we planned in 1925 we probably planned without the knowledge we have today of the use of the various mechanized units. I know that we probably planned for the activity of a small unit rather than an immense Army. I know that we might not have the dive bomber and all those things in mind, so we would have to throw those plans out, but I can see in the waves of sympathy that the Congress reacts to and the problem that you have of going to the Budget and the subcommittees, that we have had this trouble.

I remember reading the record of the scandals that grew out of the construction of Spanish-American war sites and camps and cantonments. I remember the criticism that results from the World War camps. I was in the Congress then myself, and I think you are doing a fairly good job on the whole.

The CHAIRMAN. We are just trying to prevent, Senator.

Senator MEAD. But we are trying to improve, having in mind your disadvantages and our disadvantages, and I think that the committee is headed in the right direction and I am sure that we will do a good job. But I would like to see, after this is all over, a unit in the Army that would receive substantial contributions from the Congress, or appropriations, for the constant study of methods and plans and for research work in military activities throughout the world. If we would make it a point as a result of our deliberations here that recommendation No. 1 would be always to be ready insofar as the blueprints are concerned, we would obtain a whole lot.

Senator BREWSTER. I take it the Senator then is entirely in accord with what we conceive to be our function to diagnose rather than to have a post mortem.

The CHAIRMAN. That is right.

Senator MEAD. I think we are doing a very good job and I hope that we profit by the points I make of the mistakes of the past. Each war, I think, has been better because of the cooperation of the military with the congressional committees.

The CHAIRMAN. We are adjourned.

(Whereupon, at 12:10 p. m. the committee adjourned until 10:30 a. m., Friday, April 25, 1941.)

INVESTIGATION OF NATIONAL DEFENSE PROGRAM

FRIDAY, APRIL 25, 1941

UNITED STATES SENATE,
SPECIAL COMMITTEE INVESTIGATING
THE NATIONAL DEFENSE PROGRAM,
Washington, D. C.

The committee met at 10:35 a. m., pursuant to adjournment on Thursday, April 24, 1941, in room 318, Senate Office Building, Senator Carl Hatch presiding.

Present: Senators Carl Hatch (acting chairman), Joseph H. Ball and Ralph O. Brewster.

Present also: Hugh A. Fulton, chief counsel, and Charles P. Clark, associate chief counsel.

Acting Chairman HATCH. The committee will come to order; we have a quorum present. General Somervell, we are very glad to have you with us this morning. Do you have your statement with you this morning? Mr. Fulton desires to ask some questions now.

TESTIMONY OF BRIG. GEN. BREHON SOMERVELL, CHIEF, CONSTRUCTION DIVISION, OFFICE OF THE QUARTERMASTER GENERAL—Resumed

CAMP CONSTRUCTION BY UNITED STATES ARMY

Mr. FULTON. Yesterday you referred, of course, to your engineering training, and I would like to know whether there are now in the Quartermaster General's staff a number of engineers who have come in since 1939.

General SOMERVELL. Yes, sir; I have a statement by branch of the officers now in the Construction Division. In reading these figures it must be borne in mind that although an officer may be rated as an infantry officer, he may also be an engineer. In other words, a man may be an engineer in civil life and an infantry or Artillery Reserve officer, as well as an Engineer Reserve officer. The present figures are as follows:

	Percent		Percent
295 quartermasters are.....	30	115 field artillerymen are.....	12
207 infantry are.....	21	45 cavalry are.....	5
178 engineers are.....	18	20 ordnance are.....	2
88 coast artillerymen are.....	9		

and a few others, totaling 969 officers.

Mr. FULTON. So that you have a large number of engineers or persons who had construction experience, who have come into your division since the emergency?

General SOMERVELL. That is right, sir. We have eight engineer officers. We have a very considerable number of distinguished civil engineers and contractors. In my office at the present time is the president of the American Institute of Architects, past president of the American Society of Mechanical Engineers, past president of the American Society of Landscape Architects, so we have the heads of all the national societies employed in the division at the present time, with the exception of the president of the mining engineers; we are not doing very much mining.

In each of our nine zones that correspond to the corps areas we have a staff which is composed of distinguished engineers and architects which were recommended to us by the profession. In other words the American Society of Civil Engineers corresponds more or less to your Bar Association, for engineers, so we got the Construction Advisory Committee to the Army, Navy, Munitions Board and the American Society of Civil Engineers, Associated General Contractors, together, placed our problem before them and told them that we had to have the best in the business in this program, and asked for recommendations.

We got those recommendations and the appointments have been made now for some 2 months. These people are actually on the job. We have the best engineer in firms that we could pick by and large on the work. We have the best contractors that we can pick by and large on the work. Consequently we have the best that the whole construction industry in the United States can offer on the job. Now we have got the best people you can get to do the job and nobody can do any better than the best.

Senator BREWSTER. Do those men come in as Reserve officers?

General SOMERVELL. No, sir; most of them came in as civilians; those who had Reserve commissions came in as such; the rest of them came in as civilians; some of them came in for nothing and most of them came in for \$8,000 a year.

Senator BREWSTER. That is rather the standard rate for men of that caliber?

General SOMERVELL. Well, it is the top rate that the Government offers, although in practically every case it is considerably less than they have been earning in recent years.

Mr. FULTON. Is the ultimate responsibility usually placed on an Army officer where you have a combination of Army and civilian men?

General SOMERVELL. As a rule. At the present time, for example, in Chicago the zone quartermaster is sick and the head of the zone is a civilian, but as a rule it is an Army officer.

Mr. FULTON. And would you compare the staff that exists today for construction work with the staff as it existed at the beginning of the emergency?

General SOMERVELL. It is about 70 times as big as it was.

Mr. FULTON. And also with respect to experience in construction in engineering work, is there any comparison there?

General SOMERVELL. The staff of the construction division as it existed in peacetime was an experienced staff. They had been engaged on the work continuously for a number of years, all of them.

Mr. FULTON. Were they engaged in engineering and construction work?

General SOMERVELL. Yes, sir.

Mr. FULTON. Of comparable character to that of the Engineering Corps?

General SOMERVELL. Yes, sir; it is a different type of work. The Corps of Engineers' work as a rule is a heavy type of construction; the type of work that these men were engaged in is more or less structural work, municipal engineering. In other words, it is more like the work we are doing now.

Mr. FULTON. What in addition—I mean, what was that, in addition to the maintenance of the posts and the building of such permanent barracks as the Army had occasion to build?

General SOMERVELL. That is all.

Mr. FULTON. It was just that work?

General SOMERVELL. Yes, sir; an Army post, as you know, is a small city in itself; it has all the utilities and buildings and things of that kind that you find in any type of municipal construction.

Mr. FULTON. There would be a quartermaster, I assume, on each post, and there has been over the past period of years?

General SOMERVELL. Yes, sir; a quartermaster on the post is the maintenance officer. Whenever any major type of construction was undertaken a special officer was appointed known as the constructing quartermaster. He was independent of the post commander, the Corps Area commander, and reported direct to Washington.

Mr. FULTON. Were the quartermasters on the various posts instructed to make plans for various eventualities, such as the possible expansion of the camp in case of war?

General SOMERVELL. No, sir; no, sir.

Mr. FULTON. As I understood it, under the 1932 plan that Colonel Chamberlin talked of, there was a duty on the corps area commander to make his plans?

General SOMERVELL. That is right, sir.

Mr. FULTON. I wondered if the Quartermaster General would collaborate with the corps area commander and make sure that from a construction standpoint the plans which the corps area commander conceived from a military standpoint were sound.

General SOMERVELL. Undoubtedly those plans were reviewed. That is prior to my time and I can't give you any first-hand report on that because I haven't personally investigated that phase of it. I have been pretty much occupied with 1940.

Mr. FULTON. And with respect to that, I understand that it was usual for officers, such as quartermasters, to be transferred from post to post.

General SOMERVELL. That is right, sir.

Mr. FULTON. So that unless they had some written report there probably wouldn't be much of a continuity in such a program?

General SOMERVELL. That is right, sir.

Mr. FULTON. And we could expect to find whatever they did have in the form of written reports with respect to each post?

General SOMERVELL. That would be my surmise; yes, sir.

Mr. FULTON. Colonel Chamberlin yesterday testified there were 227,000 men, or rather housing facilities for that number, at the beginning and I believe you testified that in computing the cost we would have to take into consideration the fact that some of the housing was existing housing?

General SOMERVELL. (Nodding yes.)

Mr. FULTON. In your No. 16 report¹ I note that you prepared housing for 1,203,492 men, and deducting the 227,000 on there it looks as though a net of about 976,492 had to be provided for.

General SOMERVELL. You should add the 227 that was existing.

Mr. FULTON. That was existing?

General SOMERVELL. Yes, sir; and this that you just referred to is in addition to what was in existence when the program began.

Mr. FULTON. Would it then be a more fair thing to look at the summary with respect to the camps?

General SOMERVELL. Yes, sir.

Mr. FULTON. In order to get the amount that was actually added?

General SOMERVELL. No, no, all of this is added, sir. Some of this extra housing is in coast defenses and on projects of that kind. If you will just refer again, please, to the table of contents there. The first page, you will see that we have divided housing up into a number of subheadings. The first one is all of it; then camps and cantonments; then reception centers; replacement centers; harbor-defense projects; air-corps projects; and miscellaneous troop-housing projects. Now each one of those subdivisions is important to the Army as an entity.

In other words, the reason we have to divide it up that way is that we want to know whether all reception centers are completed or in operation; whether the replacement centers are in proper shape; and so on, so the report is devised to give the Secretary and the Staff a report on the various subdivisions that way.

Mr. FULTON. In your No. 17 report,² which came out on April 23, very recently, then the figure on page 6 must be the total figure for all the emergency-housing program, including hospitals and warehouse storage?

General SOMERVELL. That is correct.

Mr. FULTON. That is \$1,313,221,906?

General SOMERVELL. Yes, sir.

Mr. FULTON. How does that compare with the original estimate of the total?

General SOMERVELL. It is considerably more. We have a deficiency appropriation of about \$338,000,000 and in addition to that there are certain other works which have been authorized, which are not in the nature of a deficiency. In other words, the original estimate has been supplemented by additional work, and on top of that there was a deficiency of \$338,000,000.

Mr. FULTON. Well, the deficiency on the entire program was a much smaller percentage to the total than the deficiency on the camp estimates as such?

General SOMERVELL. That is right.

Mr. FULTON. Much has been said about the fact that the camp estimates were only a fraction, small fraction, of the total real cost, but if we look at the entire emergency program there is a much better picture?

General SOMERVELL. That is right, sir, and I would just like to give you some general points in connection with that overrun, because they are going to appear time after time in individual camps. If you

¹ Exhibit No. 32, on file with the committee.

² Construction progress report, not introduced in the record.

want to question me on individual camps, perhaps I can save a little time. If I give you some ideas that apply to all the camps. The original estimate on those camps was about \$500,000,000, so that gives you the relationship to the \$338,000,000 that you spoke about a minute ago. Now, that isn't quite 100 percent increase.

I would like to invite the committee's attention to some figures which I just obtained from the Fifth Report of the Select Committee of the House of Commons on the Construction of Camps in Great Britain, and particularly to the five camps which they picked out as being typical. They made a survey of conditions and construction work in Great Britain and curiously enough it was a very interesting parallel to what went on over there, and what went on over here. They had to build hurriedly and the costs of construction are under scrutiny by the Parliament just as they are by the Congress over here, and these five camps, camp A cost 263 percent of the original estimate; camp B, 333 percent of the original estimate; camp C, 482 percent of the original estimate; camp D, 377 percent of the original estimate; and camp E, 240 percent of the original estimate. So you see that the costs there were in the main greater than the costs here.

Mr. FULTON. That is percentagewise?

General SOMERVELL. That is right.

Senator BREWSTER. What were the costs per man for their housing?

General SOMERVELL. That isn't in the report here, sir, I am sorry to say.

I should like to introduce this report as an exhibit.

Acting Chairman HATCH. It may be admitted.

(The document referred to was marked "Exhibit No. 35" and is on file with the committee.)

Senator BREWSTER. That parallel would be of more interest.

General SOMERVELL. Well, I imagine undoubtedly that the costs were less because labor costs are so much lower there.

Senator BREWSTER. That's the first time I haven't seen you able to answer a question, General.

General SOMERVELL. There are lots of them I can't answer.

Senator BREWSTER. Will you furnish that information for us?

General SOMERVELL. Right there is the report; I will if I can find it, but I doubt it because I have tried to find it for my own information, and I have been unable to do so. But there is a very interesting side-light on that, sir. I tried to show it here on this little chart.¹ I think all of you gentlemen were in the war before and what I have got here is a camp, this is Camp Edwards, and I didn't pick that out because it was a New England camp, but it was a good lay-out which we could use.

Now this is a parade ground, and starting here in the center are buildings which were not in the camps during the last war; these brigade headquarters, these two theaters, the dental clinic, the field artillery brigade headquarters, the guest house and service club, the ordnance shop, QM shop and coal trestle; those are all things you didn't have in the last cantonment program.

Senator BREWSTER. Will you show later what those add to the cost?

General SOMERVELL. Yes. Then here is the next row of buildings; regimental administration building, regimental officers' mess, regi-

¹ Not introduced for the record.

mental officers' quarters, on all sides of the quadrangle. That is the first two rows of buildings.

Now here is the next row of buildings. The company administration and storage buildings. Remember in the last war you had your orderly room right in the barracks; now you have extra buildings for company administration and extra buildings for company storage.

Senator BREWSTER. These are all extra facilities?

General SOMERVELL. Over and above what you had before. Now here is the next line, and these are also in addition to the ones that you had during the last war; post exchange, recreation building, extra guardhouses; you just had one guardhouse; these are regimental guardhouses, regimental infirmary, in addition to the camp hospital.

Now here is an entire row of recreation buildings; the company day rooms. You didn't have those in the last war.

Regimental warehouses in addition, gas station. Of course, you didn't have so many cars, but this calls for an increase in construction. Motor repair shop goes along with that. Then here are these extra mess halls. There were a certain number of mess halls in the last construction, but most of them were a part of the barracks.

Here is a whole motor-repair shop for the camp.

Senator BREWSTER. I was surprised about the company mess hall in cantonments; I was familiar with all separate mess halls.

General SOMERVELL. So was I; yes, sir. Now here is the whole camp. This red line is the area that I have described. Now compare the buildings in that with the buildings outside, which more or less compare with the buildings which you had in the last war. Here are some of the interesting things about the camp that I might bring out. There is an air field being built adjoining the camp, which was not built during the last war. Big wells had to be installed here with huge pumps to handle the water.

Senator BREWSTER. You had water during the last war?

General SOMERVELL. Just about a third of what you have now, sir. The allowance during the last war was 50 gallons; the allowance now is 100 gallons and owing to the requirements for the motor transport they are substantially in excess of that. It is curious that these iron horses seem to drink more water than the real ones. The secretary told you that the facilities for training, the ranges, and all that kind of thing, are very much more extensive than they were in the last war because you didn't get full training in the United States.

You have got these paved truck areas, which are necessary on account of the additional motor-transport facilities. You have a railroad here 11 miles long. Here is a picture of it. You notice the type of construction that we had to resort to. It is heavy construction and cost a lot of money. A new electric transmission line; new 3-mile pipe line. Here is a great big hospital that covers an enormous area; and just these walks that connect the buildings are a mile long. This scale is a mile here. That is just a picture of one camp. That is a one-division camp with a few additional troops, but the whole point of this picture, in addition to trying to give you a general idea of what one of these division camps looks like, is to show you the very important proportion of the construction, which is an additional feature over what we had before.

Senator BREWSTER. When was that decided on, General?

General SOMERVELL. It was decided on from time to time. Most of it was decided on prior to the time the program began, but there are certain facilities which have been added as we went along.

Senator BREWSTER. Then it was evident that the per capita cost would be very greatly in excess?

General SOMERVELL. Apparently it was not, however.

Senator BREWSTER. It certainly is obvious, looking at this.

General SOMERVELL. Yes, sir; a good many of these facilities have been added since that was made, but a great many of them were there when it was made.

Senator BREWSTER. So that if that had been taken into account when the Congress was originally asked to provide, why they would have known that using the yardstick of 20 years ago was way off?

General SOMERVELL. Yes, sir.

Senator BREWSTER. And that you think was one of the great reasons for the substantial variation?

General SOMERVELL. That was one of the reasons; yes, sir; additional facilities.

Senator BREWSTER. And was that estimate prepared by your predecessor?

General SOMERVELL. It was prepared in the office; yes, sir.

Senator BREWSTER. He was the one who would be primarily responsible?

General SOMERVELL. Yes, sir; now in this whole area the air space or the cubage which was allowed per man in the beginning of the last war in barracks was 375 cubic feet; that was subsequently increased to 500 cubic feet, and in this lay-out the men are given 750 cubic feet, now.

Senator BREWSTER. You mean that is an increase of over 30 percent?

General SOMERVELL. Practically 100 percent over the beginning of the last war and 50 percent over the end of the last war.

Senator BREWSTER. And when was that decided on?

General SOMERVELL. That was decided at the beginning of the program.

Senator BREWSTER. Well, there again you knew you were going to have a tremendous increase?

General SOMERVELL. Oh, yes. Your question, Senator, was how did the cost per man over here compare with the cost in Great Britain?

Senator BREWSTER. Yes.

General SOMERVELL. And what I am trying to show, now, sir, is a comparison between the facilities which we have at the present time, what we had during the last war, and the facilities in Britain are more comparable to what we had in the last war than they are to what we have here now.

Senator BREWSTER. They haven't changed so much the condition?

General SOMERVELL. No, sir.

Senator BREWSTER. Is that same thing true about the tent cantonments?

General SOMERVELL. Yes, sir. The tent cantonments now include a great many buildings which they didn't have before.

Senator BREWSTER. I am speaking now about the amount of cubic space.

General SOMERVELL. I don't know how many soldiers they put in the tents in the last war. There are five and six in them now.

Senator BREWSTER. More than that.

General SOMERVELL. The lay-out is on that basis. There may be in some cases.

Senator BREWSTER. They have these double bunks down at Blanding, at any rate.

General SOMERVELL. The cubage in the tents is 335.

Senator BREWSTER. Is that the same as it was before?

General SOMERVELL. That is what I don't know. It is another thing I can't answer. Now the other things that are connected more or less with all the camps is the question of these utilities. When those estimates were made they were made on the basis of a type of lay-out and on the basis of costs in certain of the smaller camps which could be done in a more or less leisurely fashion. In other words, Camp Ord and Camp Lewis and Benning, and one or two others. In all of those places the utilities, like the ones at Fort Sill that we were discussing yesterday, were more or less available all the way through.

Now when we got into these camps where the lay-out had not been fitted to the ground it was found that a great deal of extra construction was necessary in order to provide the railroads, the roads, the sewers, water supply and transmission lines, and so on. Railroads. Take this camp, for example. That camp had been adequate for the Massachusetts National Guard, which was a fairly small organization, without railroad facilities. But with this number of people in there it was found that it couldn't be handled adequately without the railroad. Now the total allowance for utilities in this camp was something on the order of \$500,000. The actual cost of the railroad was about \$750,000. There are other camps where extensive railroad facilities have had to be provided.

Take the one at Rolla, Mo.; that is an exceptionally fine area from a training standpoint. The ground belonged to the Government and was selected for that reason. However, there was a tremendous railroad that had to be built there. The main line is some 17 miles long and the construction work going in there was quite heavy. I have some pictures of that, I think. As you can see from these pictures what was involved there, heavy cuts and bridges and things of that kind, all of which had to be provided, but they were things which could not originally have been foreseen, so there has been a good deal of increase in connection with the railroad.

Water supply—

Senator BREWSTER. Before you leave the railroad, what about that matter of weight of the rails?

General SOMERVELL. At Blanding?

Senator BREWSTER. In general.

General SOMERVELL. Well, in general the weight of the rails was made to conform to the weight of the rails on the main line of the railroad.

Senator BREWSTER. Was that 85 pounds?

General SOMERVELL. Well, it varies, sometimes as much as 110, sir. At Blanding the main line of the Southern there to which this siding connects is 60-pound rail, the same as we have in Blanding. Now that rail would be all right, and is all right if we put some more

ballast on the track, but if you are going to use sand ballast you perhaps ought to increase the weight of the rail and you ought to put some—well, in fact you ought to add some cinders or something to the sand ballast to stabilize it a little bit, because that sand ballast hasn't any particular cohesion.

Senator BREWSTER. That was not in accordance with the Government specification, was it?

General SOMERVELL. There is no Government specification. All the Government specification has to conform more or less to the A. R. E. A. Now, there is a lot of apprehension about railroads. I have built some railroads, built a lot of them during the last war. If you have a high speed tractor, heavy equipment, why you need a certain type of rail. If you don't have that why you can use lighter rails. Now the standard rail which was used over in France was 85-pound rail and I think in present-day practice of the A. R. E. A. that the 85-pound rail is the minimum specified. However, there is a lot of railroad in this country being operated every day with 60-pound rails and it is all right, provided you don't attempt any fast operation.

Senator BREWSTER. There was no instance where the Government paid for any more than it got?

General SOMERVELL. Not that I know of, sir. We take pretty elaborate precautions to prevent that and of course some things are going to slip by, but on the whole the precautions we take are excellent. We have had our whole procedure reviewed by the American Institute of Accountants and I have a letter from them saying that the procedure is a right and proper procedure. The only qualification they make at all is that it has to be administered intelligently, and we are doing the best we can with that.

Now in addition to the railroads I discussed yesterday a little bit the necessity for having heavier roads than had been anticipated in certain of these areas that fell in the Rain Belt. Last year they had more rain in Louisiana and Texas than they had in 47 years, and during that period it was necessary for us to build these camps.

Acting Chairman HATCH. May I interrupt just a moment, General Somervell? The Senate is in session; they have an important service, memorial service, for deceased Senators, and most of the committee feel they should attend; for that reason we are probably going, but I shall continue to remain in order that you may finish with your testimony. I have the feeling you have some other business to do besides appearing before a committee. You may proceed. I want you to understand why the attendance is small this morning.

General SOMERVELL. In addition to the difficulty caused by the rain and owing to the mechanization of the Army it has been necessary to provide much more substantial roads than were customarily used in the past. In areas such as Polk and Hulen and some of these other places down there on the Gulf coast where we run into a good deal of mud, it is necessary to provide concrete roads. The roads have had to be a good deal longer than they were before because of the attenuation of the camp.

In other words, the camp is spread out more because of the mechanization and consequently the roads are considerably more in extent than they ordinarily would be.

Acting Chairman HATCH. I don't want to interrupt your line of thought, and I haven't been here during the last 2 or 3 days and you may have covered all this, and I hesitate to ask on that account, but I am very curious to know just why these camps were located in the places where they were. Take this one where this heavy construction work was necessary and the one you are just talking about, Polk, where all this concrete work had to be done. There are plenty of places in the country where those things would have been unnecessary, are there not?

General SOMERVELL. Yes, sir; but the other witnesses have gone into the selection of camps in considerable detail, Senator. To summarize what they have said as well as I can, the camps were selected primarily because they were to be used for training of troops and the training questions were predominant in the selection of the site. In other words, we are spending billions of dollars to train these troops and if we get them in the camps and even if we do get cheap hotels for them to live in—which these camps are, if you can't train them that has been not a very wise economy. So the thing that dictated the selection of these camps was the question of finding a place where training could be carried out to the best advantage.

Now I said yesterday, or rather I was asked the question, that I had made a statement that we could have saved \$100,000,000 if we had had plans ready. Now that had many—

Acting Chairman HATCH (interposing). The thing I am talking about is that it is still going on. There are going to be new cantonments located now and I have been investigating, somewhat, trying to find some information; frankly, my own State has been involved trying to get a cantonment and the rumor has come to me that they can't find a suitable site in the whole State of New Mexico for a cantonment.

Colonel WILSON. May I interrupt for just a minute? Of course in mobilizing this Army the primary considerations were, General Somervell says, not only training but also for strategic reasons we wanted not to have all the training in one climate. You take Camp Edwards, it is necessary, we think, to have a certain number of divisions up in the New England States.

Acting Chairman HATCH. I look at your map and you certainly have put most of them in the same climate, it looks to me.

General SOMERVELL. Haven't you enough red marks in your State?

Acting Chairman HATCH. You haven't any. It seemed to me so ridiculous to say there wasn't a place in the State of New Mexico where a suitable cantonment site could be located.

General SOMERVELL. That is just a rumor; isn't it?

Acting Chairman HATCH. I have been trying to get the information and I haven't been able to get it.

General SOMERVELL. That is just a rumor, I think, sir.

Acting Chairman HATCH. I asked for inspection of certain places and I am quite sure no inspection was made.

Colonel CHAMBERLIN. There was another thing that was given great weight in the selection of these sites, and that was the readily available ground to build on.

Acting Chairman HATCH. You know the Government in the State of New Mexico owns nearly two-thirds of our State, as far as available ground is concerned. I just put that in.

Colonel CHAMBERLIN. You don't know it but practically all of these camps have been put on existing reservations or State-owned reservations, on which we could accomplish leases immediately.

Acting Chairman HATCH. Didn't I understand from some testimony the other day it wasn't for a camp site but something else you were paying \$65 an acre for the land?

Colonel CHAMBERLIN. That is correct, some of the new sites we had to acquire in cases of replacement centers, but outside of about—I think we only acquired 14 new sites for training and replacement centers, but most of these we had to start building as quickly as we could, so we had to take existing reservations or existing State reservations that we could lease. That was a very important factor in deciding which reservation—deciding as to the sites.

Acting Chairman HATCH. You had no plans for that, Colonel, did you?

Colonel CHAMBERLIN. Yes, sir; these sites were the exception of those that we had to acquire, which I said was a limited number; they had all been planned out for the last 2 or 3 years as being the locations of concentration areas.

Mr. FULTON. Do you mean they had examined the water facilities, the places where the sewers were to be put, the roads, and the various other things?

Colonel CHAMBERLIN. They had not been examined for this particular kind of camp; they had been examined, of course, for purposes of the P. M. P. concentrations.

Mr. FULTON. For example, at Camp Meade, Fort Meade, had you made the examination of where you were going to put your sewers?

Colonel CHAMBERLIN. I think undoubtedly the corps area commander had complete plans as to what he was going to do in Camp Meade under the P. M. P. which was a tent camp.

Mr. FULTON. Which was a tent camp of different construction and that plan was not used in the construction which actually took place at Fort Meade?

Colonel CHAMBERLIN. No, sir; what actually developed at Camp Meade was a cantonment because a tent camp would not be adaptable for year-round occupancy in this particular climate.

Mr. FULTON. If the plans were not different why couldn't you have taken an existing area which would more nearly have fitted your requirements for acreage than Fort Meade, which I understood was supposed to be too small?

Colonel CHAMBERLIN. There wasn't any other area we could get in a hurry. I told the committee yesterday that I would like to review what General Twaddle said. General Twaddle indicated that for strategic reasons and for cold-weather training it was desirable to have four divisions in the East and Northeast—northeastern section of the United States. Those four places that we chose because the ground was available for immediate construction were Camp Meade, Indian-town Gap, Falmouth, and Camp Dix.

Mr. FULTON. Was it your conclusion that you could build at Camp Meade cheaper than you could build in New Mexico?

Colonel CHAMBERLIN. No, sir. I must review again, Mr. Fulton, that the War Department decided for strategic reasons that they

must have four divisions concentrated in the East and the Northeast, and cost made no difference on that because that was a strategic demand or a tactical demand.

Mr. FULTON. Cost turned out to be over \$1,000 a man at Meade, didn't it?

Colonel CHAMBERLIN. I can't tell you the exact cost.

Mr. FULTON. That was the barracks plan?

Colonel CHAMBERLIN. I think General Somervell can answer.

General SOMERVELL. I think at least \$1,000. I have a list here.

Colonel CHAMBERLIN. We find the cost in the last war running over \$1,000 a man but we have to have them up here; we can't bring the troops from Alaska and put them down in this country. In other words, the thing I am trying to bring out is that one of the important considerations in the location of the eastern camps was that it was decided that divisions must be concentrated in the East. That was a fixed requirement.

Acting Chairman HATCH. That is exactly what I want to know, Colonel, what considerations entered into the selection of these camp sites; for strategic reasons, I can understand that perfectly, if it is necessary to locate a camp at a certain place for that purpose, the cost should not be involved.

Colonel CHAMBERLIN. Most all of the other camps were desired in climates where year-round training could take place. You will find that most all of the divisions and the replacement centers have been located in the South and far West.

Acting Chairman HATCH. South and Southeast.

Colonel CHAMBERLIN. South, Southeast, and far West.

Acting Chairman HATCH. Not the far West so much, except in California.

Colonel CHAMBERLIN. Yes, sir; that is what I mean, in California.

Acting Chairman HATCH. Washington; according to your map that is way up north where it rains all the time.

Colonel CHAMBERLIN. We have four divisions on the Pacific coast.

General SOMERVELL. Let's confirm that rumor, Senator, first. Almost exactly \$1,000 for Meade.

Mr. FULTON. If you deduct from Meade the facilities that already existed in Meade, which I was informed by your office would take care of I think 3,310 men, and then divide that remainder into the cost at Meade I think you will find it is \$1,090 per men.

General SOMERVELL. Today we won't quarrel with your arithmetic.

Mr. FULTON. Although that arithmetic would be changed slightly by today's new report; I was using yesterday's. Now that interested me because I asked for the figures on the cost of new housing in the two cities in Maryland which were nearest in population to the size of Meade, and found them to be Hagerstown and Frederick, and taking the cost of housing in 1940, permanent housing that they have built, and dividing it by the number in the average family you find that the per capita cost of new housing of permanent character in Frederick, Md., is less than the per capita cost for barracks in Fort Meade, and it is only \$1,056, as against \$1,090 at Hagerstown, it is slightly higher, \$1,210, so we are paying as much for barracks housing as we would be paying in that same area for permanent housing.

General SOMERVELL. The cost per barracks at Meade was \$347.60. Now the total cost was the figure you gave. Have you included in

the Frederick and Hagerstown costs the cost of the streets, water supply, railroads, sewers, and all of those things?

Mr. FULTON. I tried to do that, General Somervell, and I got the assessed value of those towns and including the fact that they have industries which Fort Meade doesn't have, I think you will find that their assessed values are quite comparable. It is costing about as much to construct Meade as it would to construct the city.

General SOMERVELL. What is the basis of the assessment?

Mr. FULTON. Frederick, Md., it is 100 percent, and the total assessed value is only \$24,748,000 and of that the realty alone is valued at only \$15,193,000, so that the value of the land which is not included in your Meade cost and the value of all the industries, which is not included in your Meade cost, in the town of Frederick is substantially smaller than the proportionate population figures if you took the ratio.

General SOMERVELL. That ought to be a good place to live.

Mr. FULTON. We looked at it only to see what a comparable cost would be.

General SOMERVELL. You have to remember, sir, that Frederick has been built over a period of 200 years and that labor rates, material cost, which go to make up that total value which you have just gave us, are vastly different from the material costs and the labor costs that we had at Fort Meade.

Mr. FULTON. The labor cost at Fort Meade, I understand, was very high.

General SOMERVELL. The labor costs at Fort Meade are quite high and they are based on Baltimore rates; the rates in Frederick are very much less, even today, than they are in Baltimore.

Mr. FULTON. I noted that before Congress, on the committee in the House, it was stated that the ratio of labor to materials in a camp ordinarily should be about 50 percent.

General SOMERVELL. That is right, and in all of these camps it has been more.

Mr. FULTON. And in the case of Fort Meade, for example, it has nearly doubled what you had expected the ratio to be.

General SOMERVELL. In other words, that would be 70-30, or 66.

Mr. FULTON. Around 66 to 34 or 35.

General SOMERVELL. I wouldn't be surprised at that at all.

Mr. FULTON. And would you agree that the estimate that only about 10 percent of the carpenters, for example, that were hired there were actually men of real finished experience in carpenter work?

General SOMERVELL. Well, I wouldn't want to give any figure as 10 percent or 20 percent, but I wouldn't hesitate for a second to say that a very large proportion of the carpenters were barn carpenters rather than cabinet carpenters.

Mr. FULTON. And many had perhaps never handled a hammer before?

General SOMERVELL. Well, that is pretty difficult; I mean all of us have handled a hammer, but I mean they were not experienced carpenters; a great many of them, no question about it; none whatever.

Mr. FULTON. Well, the average barracks, as I understood it, ran somewhat over \$15,000 at Meade.

General SOMERVELL. I don't know the figure for Meade, but some of them would run that much.

Mr. FULTON. How much had the Quartermaster General found the cost when he constructed a typical barracks in peacetime?

General SOMERVELL. About \$8,000 to \$9,000.

Mr. FULTON. So it was running almost double?

General SOMERVELL. That is right, sir.

Mr. FULTON. Despite the fact that there would be the same quantity of materials and presumably the disparity of material prices would not be as great as the disparity in labor prices?

General SOMERVELL. That is right, sir. The material-price increases were notable, particularly in the lumber. The prices on lumber which were used in the estimate of the eight or nine thousand dollars that I gave you were about \$30.

Mr. FULTON. As against \$40 which were actually paid?

General SOMERVELL. That is right; that price went up until about Labor Day, and beginning at Labor Day, when we took over the purchasing, the prices dropped steadily, even in the face of increased demands for lumber, until it is now down to \$30.62.

Mr. FULTON. Since it has dropped that way would you say that is because you have evolved a plan of the Government's buying the lumber directly and furnishing it to the camps?

General SOMERVELL. Yes. In other words what we have done is eliminate the competition between the contractors for the lumber. We have two contractors, one at Belvoir and one at Meade and they are both anxious to finish the job, and we have told them that speed is the essence, and they have to get these things finished; the troops have got to get in them and we have hired you because you are good and you are supposed to drive these projects, and they want to get the lumber; so they go to the mill and one fellow says, "I will give you \$30 for this lumber," and the man says "All right." Then 2 or 3 hours later the other man calls him up and says, "I want this lumber." He says, "I am sorry, it is all sold."

He says, "I will give you \$32 for it." He is still an honest salesman and he says "No." He says, "I will give you \$34." Then his sales resistance breaks down and he sells for \$34, and we pay the \$4, so in order to avoid that kind of thing we established the central purchasing.

Mr. FULTON. The point is I think that lumber was somewhat near 25 percent of the total estimated cost of such camps.

General SOMERVELL. That is right.

Mr. FULTON. And therefore involved considerably more than \$100,000,000 at the beginning, and now would involve somewhere around \$150,000,000?

General SOMERVELL. That is right.

Mr. FULTON. And if the Government, by bidding against itself through contractors on cost-plus-fixed-fee raised the price of lumber alone by \$50,000,000, that is a tremendous waste, is it not?

General SOMERVELL. Yes, oh, yes; and that was recognized early in the game and steps were taken to stop it.

Mr. FULTON. When was it recognized?

General SOMERVELL. About Labor Day.

Mr. FULTON. About Labor Day?

General SOMERVELL. Yes.

Mr. FULTON. Had there been no plans made before for the Government to buy the materials, especially the materials such as lumber?

General SOMERVELL. No, sir; it was thought more expeditious to let the contractors do their own purchasing. It is a very serious question as to whether central purchasing is desirable, or not.

Mr. FULTON. But there could be no question about it in a case like lumber, where you might be able to save \$50,000,000 in lumber alone?

General SOMERVELL. As a question of hindsight, that is absolutely correct.

Mr. FULTON. Wouldn't it be true as a question of foresight because the producers of that particular type of lumber are capable of producing large quantities that could have been dealt with by the Government in groups, could they not?

General SOMERVELL. You must remember they didn't get their appropriation until September.

Mr. FULTON. But I mean were there no plans to contact the producers of that type of lumber beforehand?

General SOMERVELL. Yes, sir. In fact the design of the barracks was changed from a 40-foot barracks to a 29-foot barracks in 1939 or early 1940, simply because they figured they could get 10-foot joists more expeditiously than they could 14-foot joists.

Mr. FULTON. And wouldn't that have been true in 1939 and 1938, just as much as in 1940?

General SOMERVELL. This was done before the program started. In other words, the change was made before the program started. Now the only thing that one can criticize—and I don't think that the criticism is very valid, is that they should have set up this central purchasing agency earlier than last September. Now the appropriations weren't made until September, the 9th and 24th.

Mr. FULTON. Didn't we find in the World War that we had this competition among contractors for material?

General SOMERVELL. Yes, sir.

Mr. FULTON. Wasn't it advised at that time, 20 years ago, that they should have some central arrangement?

General SOMERVELL. Yes, sir.

Mr. FULTON. And that has been in the reports for 20 years?

General SOMERVELL. Yes, sir; nobody ever read them except the man that wrote them.

Mr. FULTON. In other words the congressional committee's report of 170-odd pages on camp construction was not read?¹

General SOMERVELL. Well, maybe, but I am not speaking of the congressional committee's report; I am speaking of the report written by the construction crew.

Mr. FULTON. And the Army Construction Bureau had a similar report?

General SOMERVELL. Yes, sir.

Mr. FULTON. But if they had been able to keep lumber at the price that you have been able to bring it back to, they could have saved as much as \$50,000,000 on this construction program? I reach that figure this way, General Somervell: You told me lumber was 5 percent of the total?

General SOMERVELL. Of the original estimate.

Mr. FULTON. Now 25 percent of the \$611,000,000 would be \$150,000,000 and by having the price of lumber raised one-third over what it was before you would find that you would save somewhere

¹ Referring to H. R. Rept. No. 171, 66th Cong., 1st sess. "Hearings on Expenditures in the War Department."

between a fourth and a third of the cost of lumber, if you had been able to keep it down, which would be somewhere between 37 and 50 million?

General SOMERVELL. Your reasoning is absolutely correct; it is just the total figure that I am wondering about.

Mr. FULTON. I took the total figure from page 13.¹

General SOMERVELL. Yes, sir; I am just looking. If you look over here on page 120, let's see how much lumber—we bought about a little over 1,100,000,000 board feet for \$39,000,000.

Mr. FULTON. That figure of course is very much smaller but that only includes what the Government bought.

General SOMERVELL. That is right and what I would like to find out is the exact figure on what was bought on the contractor's account direct, and then we could give you an absolutely accurate figure on that, sir.

Mr. FULTON. Would you do that, or furnish it to the committee?

General SOMERVELL. We would be glad to.²

Acting Chairman HATCH. General, I just merely want to call your attention to this map in connection with this location of camps in the light of what was said here a moment ago, that the camps were located for strategic reasons, and where they could have all-year-round training. From this map I find within a distance probably of three or four hundred miles in the State of California, bordering on the Pacific Ocean, five camps have been located. Now, of course, that is all-year-round training and it may be for strategic reasons to have those camps there on the Pacific coast. I don't know, but from here clear to the Gulf of Mexico on the border between the United States and the Republic of Mexico there are two camps located, covering a distance of 1,500 miles, easily, perhaps more than one in southern Arizona and one in Fort Bliss, and that country is all susceptible to all-year-round training, every bit of it, and it just perplexes me a little bit when that statement is made that five camps should be located there on the Pacific coast for strategic reasons within that short distance, and only two in that long distance across the border there.

I am not asking you to comment on that at this time; I don't know what the reasons are; I am just suggesting it to you for consideration.

General SOMERVELL. I would like to sum up what I started to say a while ago, if I might, about this \$100,000,000. What I had in mind on that was that if these camp sites could have been selected and if plans could have been drawn in detail to fit the organization which was changed during the summer, the one that was finally adopted, these contracts could have been let out in definite quantities.

I didn't mean that by selection of the sites there would have been any improvement to anything like that amount.

Mr. FULTON. Of course, that would mean that that would be a saving for planning alone, and we would expect that we would add to that the saving that could have been made by centralized purchasing of materials such as lumber and the saving that could have been made, if any, by selecting the sites which would have been equally available for military purposes but which would not have necessitated as much or as extensive work as the sites that were selected, so that there

¹ Of construction progress report No. 17 which was not entered in the record.

² The War Department later informed the committee, under date of June 9, 1941, that the exact amount of lumber purchased on the contractors' account was 21,438,597 board feet at a total of \$894,147.29.

might be a whole series of savings over and above the one hundred million you referred to on planning.

General SOMERVELL. The planning I had reference to was planning the sites so that the work could have been carried on with maximum efficiency.

Mr. FULTON. That is just assuming the existing sites with their existing difficulties, and the material purchased as it was, instead of as it might have been purchased.

General SOMERVELL. That is right.

The other things, then, are pretty general on these camps. We have touched on the labor and materials. I think that to sum the whole thing up, about from 50 to 60 percent of the additional cost came from building more things, more roads, more railroads, more water supply, more sewage disposal, than had been contemplated with a type of camp; in other words, in fitting these things to the actual ground.

Then there was about 33 percent—30 to 40 percent—maybe that was additional cost of labor and material.

Now we have covered the material. The labor extra cost came from one of the things that you pointed out, Mr. Fulton; that is, the inexperience of some of the personnel. Other costs were those which arose for overtime, shift work, working under difficult conditions, rain and snow in the very worst part of the winter.

A very important consideration is the difficulty that management has in finding proper supervision in expanding enough to handle these great quantities of men efficiently.

Mr. FULTON. You mean by that, that a company which had perhaps been a large contractor, used to handling two- or three-million-dollar jobs, might have to handle ten-, fifteen-, or twenty-million-dollar jobs?

General SOMERVELL. That is correct, sir.

Mr. FULTON. They wouldn't have the organization for that, in at least the extent that you would have liked them to have that.

General SOMERVELL. And even if they do have the organization, they have to get their men back and get them back on the pay roll. They don't keep them on the pay roll at all times. I might be a Fuller man, for example, but I might not be hired by the Fuller Co. at that moment; yet, if they got a job, I would go back to them and I would be a part of that organization.

Mr. FULTON. And they might have considerable work of their own on which their staff is largely employed.

General SOMERVELL. That is right, but if a contractor was overburdened with other work they didn't give him a job. There are some excellent contractors that weren't given jobs for that reason, and we are trying to get those on these new jobs, because the jobs which prevented our giving them the original jobs are completed now.

Mr. FULTON. Another factor I was thinking of on labor, there, which would perhaps be fair to labor to mention, is that some of the overtime that was required and some of the inefficiency that you refer to would be due to the fact that these directors came down to add new buildings in different places and at different times than had originally been scheduled, or which hadn't been scheduled at all. Isn't that true, General Somervell?

General SOMERVELL. That is true, to some extent, no doubt. But they couldn't authorize these troops completely, in the first instance.

That was the difference there. In other words, it was a physical impossibility to decide that the Four Hundred and Forty-fourth Sound Range Company was going to Camp Davis, N. C. I don't know whether it is going there or not, but assuming that it is, the assignment of that particular unit couldn't be foreseen always from the beginning.

Mr. FULTON. But taking Camp Edwards there as an example, General, and the diagram you have drawn there, it would be better from the contractor's, the engineer-architect's, and the labor standpoint if you could tell them to start at one end of that quadrangle.

General SOMERVELL. That's right.

Mr. FULTON. And proceed in an orderly fashion.

General SOMERVELL. Or to start from all four corners if they are going to build it fast, and that is exactly what we are doing now, sir. We are preparing plans on that basis.

Mr. FULTON. And that is for the new camps if we need new camps?

General SOMERVELL. For the ones which the Senator says are not going to be in New Mexico.

Mr. FULTON. With respect to page 13,¹ referring to the camps, I note that you have a total cost of \$611,455,000 for camps and cantonments.

General SOMERVELL. Yes, sir.

Mr. FULTON. And that they are to house 854,810 soldiers when they are through.

General SOMERVELL. Yes, sir.

Mr. FULTON. Now I note that you refer to tents as being 29,550.

General SOMERVELL. Yes, sir.

Mr. FULTON. Does that mean that approximately 555,000 of the men are to be used in tents; that is, 6 to a tent?

General SOMERVELL. I think it is five, if I am not mistaken.

Mr. FULTON. Five hundred thousand?

General SOMERVELL. No; I mean 5 men. That would be about 450,000.

Mr. FULTON. About 450,000, so that would mean that something over half the men are to be housed in tents as distinct from barracks.

General SOMERVELL. That is right.

Mr. FULTON. And dividing that total number of men into your total cost there, I note that it is—with the new figures, I am not sure, but with yesterday's figures—about \$720 a man.

General SOMERVELL. I think it is going to run about \$775 a man when all the buildings that have been authorized get into the camps.

Mr. FULTON. And with more than half of them housed in barrack space, at least, in tents.

General SOMERVELL. Yes; but I include in my figure of \$775 also the reception centers and the replacement centers and the coast defense. In other words, the whole housing program is going to run about \$775 a man.

Mr. FULTON. I was interested in comparing that with the per capita wealth of the United States, which, as I understand it, is supposed to be \$2,327, so it costs——

General SOMERVELL (interposing). That is what, sir?

Mr. FULTON. The per capita wealth of all the United States, divided by the number of people. In other words, we are spending over 30

¹ Of Construction progress report No. 17, not introduced for the record.

percent of the per capita wealth for an individual in order to house him mostly in tents.

General SOMERVELL. How much do we owe now, about 75 billion?

Mr. FULTON. I didn't figure that.

General SOMERVELL. Just suppose we owe about 75 billion. We have 150,000,000 people. That means we owe about \$5,000 apiece, doesn't it?

Mr. FULTON. No; I don't think your arithmetic is right.

Acting Chairman HATCH. Somebody take a pencil and do a little figuring.

Mr. FULTON. I think you will find it to be about five or six hundred dollars.

General SOMERVELL. Is that right? Five hundred is right.

Mr. FULTON. What I meant, General, was, apparently it costs about 30 percent of the per capita wealth that we can say is available for each of these soldiers simply to put him in a barracks or tent in a camp of this kind, and when we consider the additional cost necessary to arm him and to equip him, and then on any possible expedition to supply him, it will cost probably many times his share of the wealth of the Nation.

General SOMERVELL. Many times what, sir?

Mr. FULTON. His share of the wealth of the Nation, so I mean it is really a serious problem to try to cut the expense.

General SOMERVELL. Oh, there is no question about trying to economize. There is no question about that. But I would take exception to your statement of his share of the country. In other words, he has already got his share. He already lived somewhere before we put him in camp, and he is not only furnishing his share of the wealth, but his life, if necessary, for the country. Don't forget that.

Mr. FULTON. In order to pay for it you have to do one of two things. You either have to take part of that share as it exists, or you have to take part of his earnings.

General SOMERVELL. That is right, or he has to work, one of the two.

Mr. FULTON. And if each soldier were in the position of having to repay through taxes, the cost of the housing alone would take him a good many years to do it.

General SOMERVELL. I think you have the cart before the horse. I think the other people ought to pay for the soldier, and not the soldier pay for himself.

Mr. FULTON. I think it will be a little bit of both.

General SOMERVELL. I think it will be.

Mr. FULTON. Would you describe in general for the committee the differences between the new plans—that is, the extensiveness with which they are being carried out and the specificity of the lay-outs—to show how they will achieve the savings to be considered?

General SOMERVELL. Yes, sir. What has been done is to get out a very detailed set of instructions to our zone quartermasters, who went out and selected two or more sites in a general location which was prescribed by the General Staff. After that their findings were referred to corps area commanders who, in turn, appointed a board with officers representing various interests—artillery, general tactics, morale, engineering—to review the findings of the zone quartermaster

and make a recommendation as between the several sites selected by the zone quartermaster.

These boards then report to Washington. The papers are referred to my office by the Staff, and we give the report an engineering review. If the engineering data in the report are not sufficiently definite for us to draw a conclusion as between two sites, or, for that matter, if they are not sufficiently definite on one site, then we ask for further data.

Armed with that information, we reply to the Staff with our recommendations.

Then, at the same time that we are working on it or subsequent to that, the tactical end of the Staff reviews the report from the point of view of training. Those views are brought together and presented to the Assistant Chief of Staff, G-4—that is the supply branch—and by him to the Deputy Chief of Staff, General Moore, and by him to the Chief of Staff, General Marshall, and by him to the Secretary of War, Mr. Stimson. Then they begin their return trip and get back to me by the same route, and we in the meantime have gone to the Under Secretary of War, Mr. Patterson, and secured his approval to the appointment of engineering firms to draw the plans and prepare the specifications for the work.

MR. FULTON. At what point, General, would you say the site is selected?

General SOMERVELL. The site is selected when Mr. Stimson approves it.

MR. FULTON. And that would be after the corps area had acted and after you had examined it and had reported back to the General Staff?

General SOMERVELL. That is right.

MR. FULTON. But before you retain the specific engineers to make the detailed lay-out drawings?

General SOMERVELL. That is right. We had retained engineers originally to make the preliminary drawings.

Now, when I get this back, we will appoint these engineers to make the final lay-out. In some cases it will be necessary to carry out other engineering work on the site before we can say the site is definitely fixed. In other words, our preliminary investigations may indicate sufficient water. When we get into a detailed lay-out we may be of the opinion that before we make the lay-out, before we say that this place is all right to go ahead with construction, we will want to drive some wells, and that will be done concurrently with the preparation of the plans.

MR. FULTON. Up to that particular point of retaining the architect-engineer, there is no reason why that could not have been done to the same extent for the camps we had in 1939, or before, is there?

General SOMERVELL. Well, the preliminary surveys cost quite a little money, and they didn't have any money.

MR. FULTON. How much would the preliminary survey of the type that we have up to that point have cost for a camp?

General SOMERVELL. It costs us about \$2,500 to \$5,000.

MR. FULTON. Couldn't that have been done in at least some of the more important locations before 1939?

General SOMERVELL. If they had had the twenty-five hundred; yes, sir.

MR. FULTON. Were there recommendations made that they have \$2,500 for that purpose?

General SOMERVELL. I don't know.

Mr. FULTON. At this particular point, then the architect-engineer—that is, the private firm to be retained by the Government—determines the exact lay-out of the camp?

General SOMERVELL. Subject to supervision, of course, during the entire affair. In other words, the zone quartermaster supervises the work, and he is in touch with the corps area commander right along, and plans as completed will be approved by the corps area commander.

Mr. FULTON. And I assume at that point where the architect-engineer is called in he is given specifications which indicate quite clearly, within reasonable certainty, where the buildings and utilities are to go, and he has to design the specific situation.

General SOMERVELL. Oh, no; he locates the buildings, he locates the utilities. He is told to put it there on the map, in this area, but he locates the buildings, the roads, and the utilities and all of those things. That is what we hire him for.

Mr. FULTON. At least, you have specified an area, so there will be no situation where some Staff officer or corps area officer would determine to locate them at any place other than that at that time.

General SOMERVELL. That is right.

Mr. FULTON. The architect-engineer knows the area, and he has to determine the specific location?

General SOMERVELL. That is right.

Mr. FULTON. Would that contract be still let to the architect-engineer on a cost-plus-fixed-fee basis, or are you able to get a lump-sum bid?

General SOMERVELL. I suppose we could get a lump-sum bid, but I had rather not, because the assignment of troops to these camps doesn't necessarily parallel the location of the site. In other words, we are told that a camp is to be of about 30,000 men. We will be told that we will put such-and-such a division there and such-and-such corps troops, such-and-such Army troops. We aren't given that whole station to begin with.

Mr. FULTON. Would that mean we will be getting back to the same evil you spoke of earlier, of not knowing exactly what we are going to do when we start, and having all these directors coming in—

General SOMERVELL (interposing). That is all in the plans.

Mr. FULTON. But unless it is planned at this time, wouldn't we find that same problem existing again?

General SOMERVELL. Oh, yes; but that isn't going to happen, we hope.

Mr. FULTON. I thought that was why you wanted the cost-plus contract.

General SOMERVELL. No; I want a cost-plus contract so that I can start tomorrow to make these plans. As a matter of fact, today we are negotiating with eight of these men.

Mr. FULTON. I know it.

General SOMERVELL. To start work. Now, they will go out there. The first thing that has to be done is to make a topographic survey. I brought up the question of having available a topographic survey of planning. There was no such thing. In some of these sites we find the same thing. A very large proportion of the United States has never been mapped, and even if it has been mapped, we can't lay out a camp with 20-foot contours. We have to have at least a

5-foot contour and a large-scale map in order to do a job, and we have to run profiles on roads and water lines and all that kind of thing. That is the first thing that starts. By the time they get in full sway we will have all the data from the Staff we need.

Mr. FULTON. And you expect you will have sufficient data so that building will not have to be added after you have started on your plans?

General SOMERVELL. Buildings will always be added. It is just in the nature of things. They are bound to be added. Nobody ever had a complete city. I was told Charleston was a complete city once, but that is all over. It is growing again.

Mr. FULTON. But I mean in effect we are still to have the additions and supplements and changes that resulted in this cost?

General SOMERVELL. They won't be on anything like the scale they were before, but it is impossible to have a complete unit. If they want to transfer one company of some kind or other to a camp from another place, and there aren't sufficient quarters, we will have to put up some buildings for them.

Mr. FULTON. With respect to the architect-engineers, would you be able to fix a limit on the cost-plus contract?

General SOMERVELL. Oh, yes.

Mr. FULTON. I mean by that an estimate for which any excess over that the architect-engineer would at least in part be responsible.

General SOMERVELL. Oh, no. What we do is, we give the architect-engineer a fixed fee. We are going to give him \$50,000 to draw the pictures for one of these camps. Now that is all he gets. It doesn't make any difference how little or how much the camp costs.

Mr. FULTON. That is what we had before.

General SOMERVELL. That's right.

Now, these plans will be drawn up, unless the situation should become more serious and unless it would be necessary to increase the Army before the plans can be finished. These plans will be drawn up with the necessary deliberation so that they can be reviewed and the final plan prepared and be considered a satisfactory and economical one.

Mr. FULTON. What I meant, General, was this, that while I don't expect the architect-engineering firms, because they are in a much different situation from the contractors, would be willing to assume the total expense or risk of exceeding the estimates, if these plans are really in the shape that you are expecting them to get won't they at least be willing to assume part of it?

General SOMERVELL. No.

Mr. FULTON. And couldn't you put a contract cost figure which, if exceeded, would mean that they would lose 10 cents for every dollar the Government lost?

General SOMERVELL. All right; you are the architect-engineer. I am the contractor. You draw some plans, and you say "Somervell is going to do this," when you haven't any control over Somervell. Would you guarantee that it wouldn't cost any more than a certain figure?

Mr. FULTON. Not if you keep adding to it and changing it, but if you haven't done that, I would.

General SOMERVELL. You have more faith in human nature than I have. If it were reversed, I wouldn't guarantee you. A contractor is a separate entity from the engineer.

Mr. FULTON. I know that.

General SOMERVELL. If the engineer were also the contractor and if he had control over the operations and if he knew what labor was going to cost and all those things——

Mr. FULTON (interposing). I think you misunderstood. I wasn't talking about the cost of construction. I would agree with you there. I was talking about the cost of the architect's work.

General SOMERVELL. Oh.

Mr. FULTON. As to whether he couldn't at least tell you that his estimate would be, say, \$500,000, which you and he agreed upon. If he could save on that, he would get ten percent of what he saved, and if he exceeded it, he would have to pay ten percent of what he exceeded it by.

General SOMERVELL. Well, of course, you can get architectural engineering services for a lump sum. You can get a man to agree to prepare your drawing of something for a definite amount of money.

Mr. FULTON. But I understood you to say this is too big a project in general for them to take that kind of thing. Now I wanted to get halfway between it, and instead of having cost-plus on the one hand and lump sum on the other, to have cost-plus with a provision for rewards and penalties.

General SOMERVELL. That is against the law. Of course you can change the law. The question of bonuses on contracts is a moot one and there is a great deal of merit to having that kind of contract. But if these camps have to be built after an emergency begins, there are going to be so many things that enter into the picture that I don't think you would get any contractor to bid on them.

Mr. FULTON. By "so many things" you mean so many changes, priorities——

General SOMERVELL (interposing). Priority orders; people would be mobilized, and the same general confusion that always exists at the beginning of hostilities.

Mr. FULTON. I think that would apply both to the contractors and to the architects.

General SOMERVELL. Not so much to the architects, and we hope as far as the architects are concerned that—well, we hope these plans will never be used.

Mr. FULTON. Naturally.

General SOMERVELL. But until that time comes, the amount of money which is going to be involved in the architects' plans will not run over 2 percent and probably not over 1½ percent of the total cost of the work, so although we might make some minor saving one way or the other, they will be inconsequential insofar as the total is concerned.

Mr. FULTON. That would be true of anything that involved only 2 percent of the total.

General SOMERVELL. That is right.

Mr. FULTON. Yet 50 times 2 would be 100 percent.

General SOMERVELL. That is right. Of course, if you are going to have your appendix out you can go out and get four or five doctors and have them sit down and say, "I am going to have my appendix out. What will you bid to take it out?" And you will probably get it out. But the same thing is true of engineering. What you want to do is pick an architect or engineer in whose professional

capacity you have a great deal of confidence, and we decided that this work would be worth so much money for that purpose, just the way you decide you will pay a lawyer or doctor or some other professional man for a certain type of service, and that is the way we go to the architect-engineer. The only thing the architect-engineer could do to run up his cost would be to pay his employees more than he should, or have too many employees.

Mr. FULTON. And especially if he has a time schedule. The latter is quite distinctly a possibility.

General SOMERVELL. That is right, and he has a time schedule. The job is going to be done in 3 months. The plans will be prepared in 3 months.

Mr. FULTON. He has no direct incentive to have the men in his office furnish 100 percent maximum efficient work.

General SOMERVELL. Except his reputation.

Mr. FULTON. He can hire two or three men and do the same amount of work.

General SOMERVELL. We will have that under supervision, sir, from start to finish. I see no objection to that whatever.

Mr. FULTON. That is all I have.

Acting Chairman HATCH. General, before you leave I want to mention again this question. I want you to forget, for a moment, that I have come from New Mexico. It is not altogether selfish on my part. Of course I confess a certain selfish interest in my State. I think everybody should have that. But when Mr. Knudsen was here the other day he was discussing the problem of unemployment, and he told us that within a year we would hear very little about unemployment, and he pointed to the vast strides being made in the defense industries.

I called his attention to the fact that these States out in the far West, and the Southwest especially, where they have no industrial activity whatever, where there is practically no income coming from the defense program, and our population is small, but the percentage of unemployed is equally as great as it is in some of the other sections of the country. I haven't urged that these industries be located out there. It would be impractical and unwise, I am quite sure. But when it comes to conditions like cantonments, and I look at this map and see that those things are being located in the same sections of the country, most of them in the greater part of which are already receiving the vast benefits from the defense spending program, I wonder why it is.

I called your attention to the fact that we do have the land there, thousands of acres of Government land; we have the climate, they can train all the year around, and we do have hundreds of miles of unprotected border down there, and I think it would be wise to locate some of these cantonments and things of that sort in that section of the country, where they are not receiving the benefits from industry.

General SOMERVELL. I will certainly acquaint the Staff with your views on that, sir.

Acting Chairman HATCH. It is not particularly my views; it is an economic problem, a problem of national welfare involved.

General SOMERVELL. I will acquaint them with that approach, and there is undoubtedly a great deal in what you say, but I would like to repeat again, sir, that it is only rumor that there are not going to be any there.

Acting Chairman HATCH. I have some direct information. I have a letter from the Under Secretary saying they will not be located there, and I was told also that the report was on file in the War Department. I suppose it will be necessary for me to go down and dig into the files and get that report. Frankly, I just didn't have the time to do that.

I do want you to consider that, though.

General SOMERVELL. All right.

Acting Chairman HATCH. I want to say this: The only contact I had with your office was in relation to a contract. It was most satisfactory. I think you handled that work most efficiently and wisely, and I hope the work goes on very satisfactorily.

General SOMERVELL. Just one bouquet is very pleasing, because all we get is the other thing.

Acting Chairman HATCH. Any other questions of General Somervell?

Senator MEAD. When you are looking into that matter, General, I feel I have a very solemn duty to represent my State. We are furnishing, I understand, 140,000 soldiers, with the marines and the sailors that we can add to that. We have two camps, one will take care of 15,000 and one, 2,000. Do something for us, too.

General SOMERVELL. I will present your views to the Staff, sir.

Senator MEAD. I admit some of the boys are more comfortable in the warmer climate of the South during the wintertime.

General SOMERVELL. Have you been to Pine Camp since the work began?

Senator MEAD. No, I was there a year ago.

General SOMERVELL. It has gone very well. It was very well handled.

Senator MEAD. Except this, General, and perhaps this is outside your jurisdiction. We are spending a great deal of money in the improvement of our airways, a great deal of money is being spent by the Maritime Commission for our seaways, ships, and a great deal of money is being spent under Army jurisdiction for our highways. There seems to be one form of transportation that is being forgotten, that would be as important as any of the rest of them in a time of national defense, national emergency—rushing troops from the East to the West coast—and that agency of transportation is the railroad agency. On inquiry I learned that a good many of the railroads are right up against it for money. They have in some cases laid off their mechanics because of the lack of money. Rolling stock that are in need of class A repairs are out on the road, rendering service. It is very dangerous, very risky. Many railroad wrecks have occurred in the last 2 years, more so than in 10 years before that time. It seems to me that something ought to be done to put our railroads in tiptop shape in case of an emergency. We are spending all this money on transportation facilities other than railroad transportation. It occurs to me that it is an appropriate question for the War Department to study. I would just like to have you consider that.

General SOMERVELL. I will speak to General Gregory about that. I know that our rail transportation branch is in daily touch with the railroad association and also with the association of railway executives, and I also know that question has been before the O. P. M., but I will speak to General Gregory about it, sir.

Senator MEAD. Counsel advises that he has taken it up with Mr. Eastman of the I. C. C. also. But the railroads, especially those that are not in the category of the top roads—and in that category I would put the Pennsylvania, the New York Central, and that type of road—are in need of immediate attention.

General SOMERVELL. I was under the impression from just casual conversations with railroad people that they were enjoying good traffic now and a good income and, furthermore, that they felt they were going to be able to handle without Government assistance the load that would be put on them, but that is just casual conversation.

Senator MEAD. That is true of some of the major roads, but in conference with some of the chief executives of the railroad brotherhoods, and in conversation with those in charge of mechanical repairs, the smaller roads are in bad shape in many instances. I really believe they ought all to receive the same attention.

General SOMERVELL. Yes, sir, I will go into that.

Acting Chairman HATCH. Are there any other witnesses?

General, do you have anything further you desire to say?

General SOMERVELL. No, sir. I would like to close on this note. I mentioned before that by and large we have got the best engineers, the best contractors, in the whole United States on this program—the best people in the United States. They are all working heart and soul, and there isn't anybody who can do any better than the best. We think we are doing very well. We have got surplus capacity for the troops and our other work is pretty well ahead of schedule. I don't mean every single job, but on the whole it is pretty well ahead of schedule.

Acting Chairman HATCH. It is gratifying to know that, General, and you may be excused now.

I understand Colonel Wilson desires to make a statement.

TESTIMONY OF LT. COL. ARTHUR R. WILSON, GENERAL STAFF CORPS, UNITED STATES ARMY—Resumed

Colonel WILSON. A couple of days ago, Senator, one of the committee asked that we prepare or call attention to any reports which previous Secretaries of War or Chiefs of Staff have made concerning the state of the Army, and that was referred to yesterday also by Senator Mead,¹ and I have here some extracts of reports made by Secretaries of War and Chiefs of Staff since 1926 and I would like to read just two or three of those short ones and then introduce this into the record.

In 1926 Dwight F. Davis, the Secretary of War, stated, and I quote [reading from exhibit No. 36]:

* * * Since the World War, not only have there come into the organization of the Army such new essential branches as the Air Corps and the Chemical Warfare Service, but within the old branches provisions have been made for the development of tanks, machine guns, railway artillery, and other modern equipment. Despite the foregoing factors the enlisted personnel of the Regular Army on the last day of this fiscal year numbered but 17,000 more soldiers than was the case 10 years ago."

and this one is 1926—

Prior annual reports—
have contained discussions of the requisites for actual fulfillment of the provisions of the National Defense Act. As yet the act remains an unaccomplished

¹ Supra, p. 185.

plan by reason of only a partial execution of its provisions. We should not blindly delude ourselves into the belief that a plan on paper is an accomplished thing. * * *

General Summerall, when he retired in 1930, after 4 years duty as Chief of Staff, states in his final report: and I quote:

In times of profound peace, we are prone to forget the lesson of all our past wars that the issue of campaigns depends as much upon the preparation for them as upon the actual conduct of the war itself * * *.

The force of public opinion which spends itself in demands for action on the outbreak of an emergency and for the futile investigations on the conduct of the war during its course or after its termination is lacking to correct deficiencies in preparations which can be only partially and slowly corrected, if corrected at all, in the course of a war.

Already 12 years have elapsed since the termination of the World War, and its lessons are gradually growing dimmer in the minds of our people.

Mr. Hurley, Secretary of War, in 1931:

Rigid governmental economy is fully consonant with great public expenditures and all departmental disbursements have been closely scrutinized with a view toward realizing operative economics and toward the elimination of waste. One of the most conspicuous results of these efforts has been the adoption of a program looking to the abandonment of 53 superfluous Army posts with resultant diminution of overhead and upkeep expenses.

Of course, 53 Army posts were not abandoned, for various reasons.

There are many of them here, but I will skip to General Douglas MacArthur, Chief of Staff in 1934—of course, the last war is getting further in the past. He says:

* * * the grave responsibilities that would fall to it—

the War Department—

in emergency would require frantic improvisations, and wasteful and possibly ineffective sacrifice of the Nation's manhood and material resources. These are facts—demonstrable both in the light of history's lessons and through logical analysis of existing conditions.

This blunt expression of War Department conviction divulges the secrets of our weakness, which if known only to professional soldiers had probably best remain concealed. Unfortunately, they are secrets only to our own people in whom resides exclusively, in the last analysis, the power for correction. They are fully known to qualified military observers abroad and to all those governments that give more credence to the conclusions of the trained soldier than we do.

In 1935 General MacArthur stated:

* * * For 13 years, the curve representing the Army's ability to perform its vital emergency missions has been trending continuously and dangerously downward. The principal causes have been insufficient strength in the Regular Force, growing obsolescence in important items of equipment for all components, and so forth.

Confronted by these obstacles, the Army, though it has intensified effort and resorted to every possible expedient, has been powerless to preserve effectiveness at a satisfactory level. * * *

In persisting in this effort, the War Department has never been concerned with establishing the validity of its own excuses for any possible failure of the future, but only in attempting to assure that no such failure, with its disastrous consequences to the country, should occur.

I will read just one more by General Craig in 1937. He says:

The Appropriation Act for the fiscal year 1937 provided sufficient funds for raising the enlisted strength from 147,000 to 165,000 in 12 equal increments. The latter figure was the strength authorized by Congress in 1936, but budgetary action limited the figure during that fiscal year to 147,000. In the fiscal year 1938 limitations will restrict the average strength to 162,000. That figure is 118,000 short of the strength prescribed by the National Defense Act of 1920.

These are various extracts from 1926 on up until 1939, and they were requested by Senator Brewster the other day.¹

Acting Chairman HATCH. They should all be incorporated in the record. I presume that is your desire.

Colonel WILSON. Yes, sir.

Acting Chairman HATCH. Without objection, it will be ordered.

(The document referred to was marked "Exhibit No. 36" and is included in the appendix on p. 364.)

Acting Chairman HATCH. Is there anything more that you gentlemen have for us this morning?

All right, Mr. Harvey.

TESTIMONY OF FORREST S. HARVEY, MEMBER, CONSTRUCTION ADVISORY COMMITTEE, QUARTERMASTER GENERAL'S OFFICE WAR DEPARTMENT

Acting Chairman HATCH. For the purpose of the record, Mr. Harvey, will you state your name and your official status, and proceed with your statement?

Mr. HARVEY. Forrest S. Harvey. I am a member of the Advisory Construction Committee of the Quartermaster General's office.

Mr. FULTON. Would you tell us, Mr. Harvey, the nature of that board and of the work that it does?

Mr. HARVEY. The Board was set up to advise the Quartermaster General. At the present time the Board works with the Chief of the Construction Division, advises him on the selection of architects and engineers and contractors for the cost-plus-fixed-fee work.

Mr. FULTON. And how many members were there in the Board originally?

Mr. HARVEY. Three.

Mr. FULTON. Who were they?

Mr. HARVEY. Mr. Francis Blossom, Mr. J. S. Dresser, and myself.

Mr. FULTON. And with respect to your past experience, what were your associations?

Mr. HARVEY. I started out as a rodman with the Baltimore & Ohio Railroad in 1906, worked on up through the various grades of level man, transit man, resident engineer and assistant engineer, up to 1917 when I went to work as a civilian at Camp Taylor during the construction of Camp Taylor.

Mr. FULTON. For which company was that?

Mr. HARVEY. I was a civilian assistant to the Construction Quartermaster at Camp Taylor.

Mr. FULTON. For the Government?

Mr. HARVEY. For the Government; yes. In December of 1917 I was commissioned as a major in the Quartermaster Corps and served until November 1919. After that I returned to the Baltimore & Ohio Railroad and was assistant to the corporate chief engineer in Baltimore for a few months, when I resigned to take a job as resident engineer on the construction of a sugar refinery in Baltimore, a \$16,000,000 job.

Mr. FULTON. What contract was that?

Mr. HARVEY. I was the joint representative of the American Sugar Refining Co. and Charles T. Main, the designing engineer.

¹ Supra, p. 185.

After that I went to what is now the United Engineers & Constructors of Philadelphia, and stayed there with them until 1931—from 1922 to 1931. I was general superintendent of construction on a great deal of varied work. Then I went to California on a large chemical plant and built that for the same firm, and that was during the depression. When that ended, I stayed there for 5 or 6 years and more or less retired. In 1939 I took a position with Leeds, Hill, Barnard & Jewett as a resident engineer on the construction of a new harbor at Hueneme, Calif., and was with them until I was requested to come here to serve on this committee.

Mr. FULTON. Do they hold any Government cost-plus contracts?

Mr. HARVEY. They have an engineering contract at San Luis Obispo.

Mr. FULTON. That is for the engineering design?

Mr. HARVEY. That is correct.

Mr. FULTON. And with respect to Mr. Blossom, of course, he has since resigned?

Mr. HARVEY. Yes.

Mr. FULTON. I understood he was with Sanderson & Porter, contractors.

Mr. HARVEY. He has been a partner of Sanderson & Porter for quite a number of years.

Mr. FULTON. And they had this one job on a cost-plus fee, but he didn't pass it, as I understand, it at all.

Mr. HARVEY. He had nothing to do with it.

Mr. FULTON. With respect to the third member, I believe that was Mr. Dresser, do you know what his experience was?

Mr. HARVEY. In general, he was with the Austin Co. at the time of the last war.

Mr. FULTON. That is one of the large contracting organizations of Cleveland, Ohio, is it not?

Mr. HARVEY. Yes, sir. After that, I think he had his own company, an engineering construction business, until the time of the depression. After that, he served in various Government positions here in Washington. I am not familiar with the detail as to what those were.

Mr. FULTON. Was he in the employ of the Government in 1939?

Mr. HARVEY. I believe not. I think he was in some business in Cleveland.

Mr. FULTON. The Austin Co. is a very large, well-known contracting organization which has one or more contracts now with the Government, is it not?

Mr. HARVEY. Yes, sir. The only one I know of is one with the Engineer Corps down in Texas.

Mr. FULTON. Would you tell us what changes, if any, have been made in the personnel of the committee that you referred to?

General SOMERVELL. Perhaps I had better do that. I have here a statement of the experience and connections of all the members of the board since the beginning, which I will be glad to submit. The original board was contemplated to be a five-man board. The original press release put out on it was for a five-man board. With all due respect to these gentlemen, they are past middle age and it is pretty gruelling work, and in addition to that we thought we ought to have a Regular Army officer on the board, so we increased

the membership to five, called General Spalding back from retirement put him on the board, and we added Mr. Alonzo Hammond. Mr. Hammond is a past president of the American Society of Civil Engineers and has a distinguished record as an engineer. He is not a contractor but he does know it, naturally, because he has had a great deal to do with it.

After Mr. Blossom's resignation, we appointed Mr. Tatlow who was a former partner of Harrington & Cortelyou, to his place. Mr. Tatlow is a good many years younger than the other members of the committee and he acts as a kind of executive secretary, as well as being a member of the board. So what we have now is a representative from the Army, General Spalding, and we have the experience of Mr. Harvey, Mr. Dresser and Mr. Hammond, and the experience and youth of Mr. Tatlow on the board. I think it makes a very fine combination.

Mr. FULTON. What type of firm was the one that Mr. Tatlow was associated with?

General SOMERVELL. Engineering firm, primarily bridge design.

Mr. FULTON. Does that firm have any contracts with the Government?

General SOMERVELL. No; incidentally he resigned his partnership before he came with us.

Mr. AMBERG. I have here a statement signed by each of these men as to his connections. I have no copies. May we give you the originals later?

Acting Chairman HATCH. You may have the copies made and supply the originals for the record.

(The document referred to was marked "Exhibit No. 37" and is included in the appendix on p. 368.)

METHOD OF SELECTING CONTRACTORS FOR UNITED STATES ARMY CONSTRUCTION

Mr. FULTON. Mr. Harvey, would you tell us the function or the purpose of the committee?

Mr. HARVEY. We are the point of contact with all the applicants for work—engineers, architects, and contractors. We receive their applications and they come in and interview us and we attempt roughly to grade them as to the class of work they think they can do. It is impossible to do that scientifically, of course, to grade any architect or engineer or contractor, but we do make a rough attempt at it which is more or less of a help to our memory, more than anything else. That is one function we perform. We receive engineers and contractors every day for interviews. The other is, when we are requested to make nominations for a particular job, we proceed to do that.

Mr. FULTON. With respect to the work, would that include the cost-plus-fixed-fee contracts only, or would it include those and other contracts that are referred to?

Mr. HARVEY. We have been on one or two occasions requested to make up what you might call a preferred bidders' list for lump-sum contracts, but that has only been on one or two occasions.

Mr. FULTON. The primary function is with respect to cost-plus contracts?

Mr. HARVEY. Cost-plus contracts.

Mr. FULTON. Which would be divided into those for architect-engineering service on the one hand, and for contracting services on the other, or perhaps also for operation services for a plant after it was built.

Mr. HARVEY. We make no recommendations for operation of plants That is handled by other branches of the service.

Mr. FULTON. So it would be solely architect-engineering and contracting service?

Mr. HARVEY. Or sometimes a combination of both.

Mr. FULTON. When you started your work, did you find in the files of the War Department information with respect to the contract or engineering firms which would be available?

Mr. HARVEY. The Chief of the Construction Division had been receiving applications for some time before we started. I don't remember just how many were there at the time we took charge; between 1,500 and 2,000 contractors, possibly.

Mr. FULTON. As I understood it, the engineering association, which General Somervell correctly compared to the bar association for lawyers, had compiled certain lists and had made available certain information which it had collected from its members, or had suggested that they send it.

Mr. HARVEY. Yes. The American Institute of Architects and the American Society of Civil Engineers had each sent out questionnaires to all their members. Those came in and were photostated and we have those records in our office. However, they are not in exactly the shape and don't give us exactly the information that we want, that we needed, and while they are useful, they are not in as complete a form as we would like to have the information.

Mr. FULTON. And would the same thing be true of the Associated General Contractors, the trade association of the contractors themselves?

Mr. HARVEY. No; we have received no data from them at all.

Mr. FULTON. Did they circularize their membership and tell them that contracts of this type might be available and that they should submit information?

Mr. HARVEY. I understand they did. I have no direct information, but I have heard they did.

Mr. FULTON. So far as the Committee was concerned, you didn't ask the Association to circularize its membership?

Mr. HARVEY. We did not.

Mr. FULTON. Did you find at the beginning of your work, before the committee started work, that there had been prepared a circular asking for the types of information which you would want from contractors or from engineers, or did you have to prepare one yourselves?

Mr. HARVEY. No, there had been one prepared by the Chief of the Construction Division, a short questionnaire which was given to all applicants.

Mr. FULTON. Exactly what did that questionnaire ask the contractors, for example?

Mr. HARVEY. I don't know whether I have a copy of that original one or not. It merely asked, as I recall it, for a list of the cost-plus work that a contractor had done and a list of the lump-sum work that he had done, and a list of his equipment, and a statement as to his financial condition.

Mr. FULTON. Did it ask for all those things in the first instance?

Mr. HARVEY. Yes. The main fault we found with it, and we changed it later, was that they didn't request the dates when the work was done, and in some cases a contractor had been very active 10 or 15 years ago and did some very large work but in the last 10 or 15 years has almost faded out of the picture, and the information submitted under that first questionnaire didn't show that up.

Mr. FULTON. Did it ask, for example, what their rate of fee was on the cost-plus work which they had done for others?

Mr. HARVEY. No; that wasn't asked for.

Mr. FULTON. Has it ever been asked for?

General SOMERVELL. May I interpose just a second? It isn't the duty of the committee to fix the fee.

Mr. FULTON. I know, is is the duty of the committee to determine three contractors, as I understand it, one of which it recommends, the other two being alternative choices.

General SOMERVELL. Yes, sir; I just wanted to say it wasn't their duty to fix the fees.

Mr. FULTON. The fee, as I understand it, is fixed by the Contract Negotiating Committee at present, of which Mr. Loving is the head.

General SOMERVELL. Yes, sir.

Mr. FULTON. As I understand it, though, you have some 4,000 contractors listed now.

General SOMERVELL. Yes.

Mr. AMBERG. Have you gotten a copy of that list?

Mr. FULTON. No. But it is the duty of this committee to narrow the selection from 4,000 to 3, is it not?

Mr. HARVEY. Well, we don't have to consider 4,000 on every job.

Mr. FULTON. But at least when you are through only 3 of the 4,000 have any possibility of ever being considered by the committee which negotiates the contract.

Mr. HARVEY. That is correct.

Mr. FULTON. So you do narrow it from 4,000 to 3 and in effect designate the 1 of the 3 you think it should be.

Mr. HARVEY. We usually put the man at the head of the list that we prefer; that we think is best fitted of those on the list.

Mr. FULTON. That is a duty of the committee which you have to do.

Mr. HARVEY. We have no instructions to do that. That has just been the practice.

Mr. FULTON. In so doing, my question related to the fact as to whether you had any information, or even have it now, as to what the fee or proportionate fee on cost-plus work was that these men had on the jobs they had done on cost-plus; or is your committee not interested in that feature, in determining the fee?

Mr. HARVEY. We are not interested in it. I don't see that it makes any difference at all. Any of these fees must have varied; they always do vary a good deal.

Mr. FULTON. At least it isn't asked?

Mr. HARVEY. No; we are not interested in it.

Mr. FULTON. Do you get the profits which the company has made during, say, the 5 years last past before it undertakes this Government job?

Mr. HARVEY. No; we don't.

Mr. FULTON. And do you ask for an expression from the contractor as to his views on what his fee should be, or on what relationship that fee should have to the profits that he has been able to make in the past?

Mr. HARVEY. It hasn't been our function at all to have anything to do with the fees.

Mr. FULTON. So that when you are examining the folders which you have, or files that you have for the purpose of ascertaining which three of all the contractors who have filed with you, you will choose, you aren't looking at it from the standpoint of the expectancy of those men to receive fees, or their willingness to take what might be lower fees than others who have equal contracting qualifications?

Mr. HARVEY. It is a rather unimportant item. We are looking for the best man to do the work. A small difference in fee would be rather unimportant as between a good man and a poor man.

Mr. FULTON. I asked that because, unlike the committee, I have asked the contractors for that information, and I find that some of them are making 4 or 5 years' profits in 3 or 4 months' jobs, without risk, if you compare the profits they have been able to make in the past. And I assume a man who has been able to make only \$100,000 on business where he has taken risk, might conceivably, if he were in competition for the contract, express a willingness to take a profit that would be somewhat proportional to what he had ever earned before.

Mr. HARVEY. Of course, the matter of fees is a matter of policy which was worked out; we had nothing to do with it at all. And I don't see where it would enter into our deliberations at all.

Mr. FULTON. I do understand, then, that when you select the three contractors out of the 4,000, you have no information before you with respect to the fees that they expect to get?

Mr. HARVEY. No; we are not interested in that.

Mr. FULTON. And with respect to the equipment, do you ask for a list of the equipment that they have available for the job?

Mr. HARVEY. We do. That is one of the questions on the questionnaires, to list their equipment.

Mr. FULTON. I think you answered "a list of the equipment they have." I want to know whether you asked them for a list of the equipment which they have available for Government work, which is quite a different question.

Mr. HARVEY. You mean that they can get their hands on?

Mr. FULTON. No; I mean this. If a contractor has, say, \$10,000,000 of private work and is asking for consideration for Government work, he needs equipment for that private work, and a list of the equipment that he has wouldn't be very meaningful. I wanted to know whether you asked him for the equipment which he would have available for work for the Government, because as I understand it, many of these contractors, although they listed a lot of equipment with your committee, actually used that equipment on their private work and then leased or borrowed at the expense of the Government the other equipment which they needed for the Government job.

Mr. HARVEY. We go into, of course, what private work they have, and if they are loaded up with private work we don't consider them on the Government job. Of course, they list equipment that they don't have; quite a number do. We don't have the time or facilities to go

out and do detective work to make sure every piece of equipment they have is in their possession.

Mr. FULTON. I wasn't suggesting that you did, but I wanted to know whether you asked the question of them as to whether the equipment would be available for use on the Government job, as distinct from whether they just had it.

Mr. HARVEY. We haven't gone into that probably in any great detail, although of course we have always interviewed these people before we haven't given them a job, and satisfied ourselves that they had a sufficient amount of equipment. Of course, none of them have enough equipment to do one of these large jobs. They have to go out and get additional equipment, and their list that they submit to us is supposed to be a list of equipment they have available.

Mr. FULTON. Available for Government work as distinct from private?

Mr. HARVEY. That is correct; but on the other hand, the main thing you are hiring on those jobs is management, and that is about all you are hiring, and there is not a contractor who has probably more than 10 percent of enough equipment. If a man attempts to handle one of these very large jobs he has to go out and get it in the territory where he is working from smaller contractors.

Mr. FULTON. But I was addressing myself to the question of whether we try to see to it that these men, when applying for a contract, state the equipment they have which will actually be used on a job that they get.

Mr. HARVEY. That is what they are supposed to state.

Mr. FULTON. Does anyone, so far as you know, anywhere in the Government ever check or even make a test check to ascertain whether in fact on these jobs they are furnishing the equipment they listed in their applications?

General SOMERVELL. Mr. Harvey can't answer that. There is such a check made.

Mr. FULTON. Do you find that the contractors actually are using the equipment that they listed, or that, generally speaking, they are using that equipment only where they haven't got a private use for it?

General SOMERVELL. Generally they use that equipment, and in addition to what Mr. Harvey said, Mr. Loving's committee, when they negotiate with him, gets a list of the equipment that he proposes to furnish, and that is furnished to the C. Q. M. on the job, and the equipment that he rents on our account above that has to pass through the C. Q. M., and the rate at which he is going to rent the equipment to us—I think I am correct on this—is fixed in the negotiation.

Mr. FULTON. In other words, after it has been narrowed down to one, then there is negotiation as to the rental?

General SOMERVELL. That is right.

Mr. FULTON. Is there any negotiation before it is narrowed down to one?

General SOMERVELL. No.

Mr. FULTON. Do you think there should be?

General SOMERVELL. I don't see what purpose it would serve, because the rate that we pay these people for the equipment whether it is owned by the contractor himself or whether it is rented, is about the same. In other words, we use as a guide a schedule which the

A. G. C.—the Associated General Contractors—has prepared for the use of its members in setting up their estimates. In other words, there is a list—so much for a tractor, for a bulldozer, and what have you.

Mr. FULTON. That guide which I have seen sets up a depreciation item, storage and insurance, and various other expenses which a contractor has.

General SOMERVELL. Yes.

Mr. FULTON. And the guide also proceeds to determine the average number of months that it is used in the course of a year, and from that to reach what they call an average cost to a contractor of owning and maintaining equipment.

General SOMERVELL. That is right.

Mr. FULTON. And that is what you use as a guide?

General SOMERVELL. That is the general guide. We have had a good many complaints that we weren't paying them enough because the equipment has been used during the worst weather and got punished more than it would have if it were used during the ordinary construction season.

We have also got complaints that there isn't sufficient allowance in there for the repairs which have to be made on the equipment after we get through with it.

Mr. FULTON. I note, however, General Somervell, that you have stricken out from the contracts a provision that equipment would be rented at the prices maintained or set forth in a certain schedule.

General SOMERVELL. That is right.

Mr. FULTON. You have substituted negotiation for this schedule?

General SOMERVELL. That is right.

Mr. FULTON. And while you use it as a guide, you depart from it in a great many instances?

General SOMERVELL. That is right, sir.

Mr. FULTON. And the departures are in the nature of increases rather than decreases.

General SOMERVELL. That is right, sir.

Mr. FULTON. And some of those have run 100 percent or over the price for maintaining it.

General SOMERVELL. That is right, sir.

Mr. FULTON. I asked the various contractors who have these contracts to furnish me with a list of the equipment and whether it was new or old, and I find that a great many people have evidently thought it was sufficiently profitable to enter into the purchase of new equipment for the purpose of renting it to the contractors and through them to the Government.

General SOMERVELL. It apparently was fairly profitable; however, it was not only profitable but it was essential because it just wasn't available unless they did that.

Mr. FULTON. Then we get the same query we had in lumber: If it just isn't available, why should the individual contractors compete with each other for equipment which somebody has to go out and buy to furnish?

General SOMERVELL. There hasn't been anything like the amount of competition for equipment that there was for lumber. For instance, on lumber at the peak of the demand we were using the entire output of the southern mills, and at no time have we approached anything

like the entire amount of equipment in any great region. In certain instances, certain localities, we have done that, but not over any considerable region, like the Southern Lumber Association.

Mr. FULTON. What I had in mind, General Somervell, was this: I have been told by contractors in and around Washington that there are so many jobs here, such as Fort Meade, Fort Belvoir, the Aberdeen Proving Ground, Bethlehem Ship, and numerous others, that there isn't anywhere nearly enough equipment in the area to do these jobs.

General SOMERVELL. That is right.

Mr. FULTON. And they, therefore, were, in effect, bidding against each other at the expense of the Government with individuals who were furnishing the equipment.

General SOMERVELL. That has happened in some cases.

Mr. FULTON. And when I have asked for lists of equipment to distinguish new from old, I find that a good share of that equipment has been purchased new by the persons who are renting it to the Government at prices which, as I say, are sometimes 100 percent of that schedule.

General SOMERVELL. You must remember there is a rental-purchase plan in effect. In other words, if we pay out twice as much in rental by the time the job is over, we own the equipment.

Mr. FULTON. I understand you have a recapture clause which enables you to take the equipment if you wish to.

General SOMERVELL. Yes, sir.

Mr. FULTON. Can you take the equipment if you get a substantial percentage of the total but do not reach 100 percent of the total value?

General SOMERVELL. Yes, sir; we can take it if we have only paid 50 percent, but our policy is that we don't take it unless we have paid in about 60 percent.

Mr. FULTON. That raises the question in my mind as to whether some of these people don't get, say, 60 percent on one job, and then 60 percent on another job at a later date, and then perhaps a third 60 percent without recapture of the equipment. Are there tests on that?

General SOMERVELL. I would say the second thing may have happened in a few isolated instances, but it would be almost impossible for them to get on three jobs.

Mr. FULTON. The time element so far hasn't entitled them to that, I suppose.

General SOMERVELL. That is it.

Mr. FULTON. But it may.

General SOMERVELL. It may.

Mr. FULTON. And is there a test being made, or test checks being made, to determine this, as to whether there are people doing that?

General SOMERVELL. What we have done is to keep them from taking equipment off just at the time it reaches 60 percent, and in that way moving the equipment from one job to another.

Mr. FULTON. But have you compiled the names of the persons renting equipment and the various jobs on which they are rented in order to ascertain total rentals for individual pieces of equipment?

General SOMERVELL. No, sir.

Mr. FULTON. Might that not disclose the practice that both you and I suspect may exist?

General SOMERVELL. Yes, sir. I would be glad to undertake such a study.

Mr. FULTON. I am already trying to, but mine would only be in the nature of a test check. Would you consider that productive?

General SOMERVELL. Let's do it and find out. I don't know.

Mr. FULTON. I will make available anything I have on that.

Mr. AMBERG. I have here, Mr. Fulton, the list of contractors who applied for jobs, arranged by States. There is another list of the same type, of architects and engineers, which I offer for the record.

(The documents referred to were marked "Exhibits Nos. 38 and 39," respectively, and are on file with the committee.)

General SOMERVELL. In addition to what I told you, we are keeping track of this equipment and a good deal of it is being transferred from one job to another with an understanding that the Government retains its equity in the equipment.

Mr. FULTON. And in "equipment" you include also trucks?

General SOMERVELL. Oh, yes.

Mr. FULTON. Because I notice there is supposed to be a possible shortage of trucks.

General SOMERVELL. We are going even further on trucks because of the interest the Army has in motor transportation, and we are taking some trucks where we haven't put in 60 percent. In other words, they are inspected by the Motor Transport Division of our office—that is General Gregory's office, to find out whether they will be suitable for military uses. If they are and the trucks are in good condition and the amount that has been paid in on them is sufficient, then they pay the balance and take them over for military uses rather than construction.

Mr. FULTON. Mr. Harvey, with respect to this question, even though you have only, say, 10 percent of the equipment, if a contractor were otherwise equal, you might prefer to designate the contractor who indicated in his schedule he was willing to rent that 10 percent of the equipment at the rates of the Associated General Contractors. Would you think it productive to ask that question of them?

Mr. HARVEY. Well, that might be a part of the negotiations with the contract committee.

Mr. FULTON. My point is by the time it gets to the contract committee you have gone from 4,000 contractors down to 1, and that 1 is in a much better bargaining position to talk about rentals at that point when he knows that he is the one than he would be if he were hoping to be 1 of the 10 or 12 that you would consider seriously or 1 of the 3 that you would recommend.

Mr. HARVEY. Of course, as I say, it isn't the most important item. The most important item is management. If he doesn't have the equipment, he can get it, and the rentals are very little different, whether he owns it or whether he goes and gets it from some other small contractor.

Mr. FULTON. Management is, of course, essential because we are talking of speed.

Mr. HARVEY. And very large expenditures of \$30,000,000.

Mr. FULTON. Rental, however, is an element of expense and it has been a very much higher expense than had originally been estimated, I understand.

General SOMERVELL. We have had a number of cases reported to us where our auditors have gone out in the field and taken exception to

the rates which are being paid for certain pieces of equipment, most frequently bulldozers. Looking at the thing cold-bloodedly, the rate was too high. In a good many cases, in fact in every case, that equipment was wanted at a certain time, and the use of that equipment at this very high rate of rental was an economical thing to do because if you hadn't done it, you might have had a lot of men idle or badly articulated work or something of that kind. The whole question of equipment is one that has been of considerable concern to us, and we have had our whole auditing force working on it for 2 or 3 months. I think between these claims and counterclaims—our auditors, on the one hand, that we are paying them too much and the contractors, on the other hand, that we are not paying them enough—that we are resolving these things pretty well. We went through a period of doubt as to whether we were handling it correctly or not, but on the whole I believe that the rentals aren't far off from what they ought to be.

Mr. FULTON. But don't you believe the contractors ought to be asked in advance what equipment they will have available and what their ideas on rental might be?

General SOMERVELL. They are. In every case the committee that negotiates the contract—

Mr. FULTON (interposing). But why not ask beforehand?

General SOMERVELL. What good would it do? Suppose we get Jim Smith who will rent us equipment for less than Bill Jones but Bill Jones is a better manager, which one are you going to take?

Mr. FULTON. If you find, not the better man, but, using the appendicitis case you find both are good surgeons and have performed a number of appendectomies, I would say you would take the cheaper man. I do realize your committee, in naming three, for example must necessarily realize there are three people who could do that job, and cost ought to enter into it somewhere.

General SOMERVELL. When the three names go over to the committee, they take the three qualities that were outlined to you, their experience and jobs done during the past 2 years and their bank statement and equipment—three of them. When I first took over the job, Mr. Loving brought me in these statements in parallel columns, showing this all set up—the amount of equipment that was owned by these various people. There isn't a great deal in the aggregate that could be saved on the rental of that equipment. If these men belonged to the Associated General Contractors—

Mr. FULTON (interposing). As nearly all of them do, I understand.

General SOMERVELL. A great portion of them do. Then their bids on equipment are going to be the same.

Mr. FULTON. They aren't though, are they?

General SOMERVELL. They are not too far apart.

Mr. FULTON. Don't you think their bids might be somewhat influenced by their determination of what the market at that particular time would be after they got the contract?

General SOMERVELL. That is right. And when a man gets a contract and has to have a piece of equipment, the rent is high. There is no doubt about it. But there is such a multitude of these things that you can't do them all, and there has to be a certain element of flexibility in the program. You have got to give these people some kind of initiative in doing these things if they are going to be of any use to us. If we tie them all down with the meticulousness with which we

ordinarily execute Government jobs, then the whole purpose of getting these people on the job would be defeated.

Mr. FULTON. That isn't a very great tying down, to ask them beforehand what their ideas are as to what equipment they are going to have and what they want to rent it for, because if they don't know that, they are not very good managers, are they?

General SOMERVELL. All right.

Mr. FULTON. Why not do it?

General SOMERVELL. We will be glad to go into it further. It is pretty well done now. Between the two groups it is pretty well done.

Mr. FULTON. And with respect to, say, the amount that a man expects to receive on a job—

General SOMERVELL. That certainly shouldn't be Mr. Harvey's committee's job, under any circumstances. That is my job.

Mr. FULTON. Why should you segregate them down from 4,000 to 3, with 1 preferred, before you get an idea from them as to what they want to do a job for?

General SOMERVELL. In the first place, you don't segregate them down from 4,000 to 3; you may segregate them down from 10 to 3. In doing so, the thing that causes them to eliminate the 7 is not how much the fellow is willing to work for, but whether they feel that the man can do the job quickest and most economically for the Government.

Mr. FULTON. Shouldn't we also consider the cost?

General SOMERVELL. No; let us take a question of a job that is going to cost \$10,000,000. We are going to pay that man, say \$200,000. Let us ask for bids and see which one of them will do that 10-million-dollar job for the least. What they are bidding on is \$200,000. Now suppose one of them will do it for \$50,000 less than the other; \$50,000 is a lot of money, but compared to the waste which this man might introduce on the job, it would be nothing. So we feel that it is to the best interests of the Government not to ask these people to bid against each other on the fee which forms such a small part of the total cost of the job.

Mr. FULTON. But which perhaps forms 4 or 5 years' profits, four or five times what they ever got in their lives on any jobs they did anywhere.

General SOMERVELL. I don't care if it forms a lifetime profit.

Mr. FULTON. Don't you think there are cases where two contractors are equal and where one of them isn't quite as anxious to make a profit as the other?

General SOMERVELL. There might be such a case.

Mr. FULTON. Isn't it a fact that there are always such cases in private life anyhow?

General SOMERVELL. I know of no case in private life where the system you advocate has been adopted.

Mr. FULTON. For example, if I were going to build a house, would you advise me to select a contractor and tell him he had the job before I asked him what his fee would be?

General SOMERVELL. Oh, you might, but—

Mr. FULTON (interposing). But I never have.

General SOMERVELL. But a house is something that you can get any number of people to do very well, but when you get one of these things it is reduced to a smaller group.

Mr. FULTON. Taking an individual situation, one I happened to examine over there. I noted that committee had 9 or 10 names. I don't believe the committee had any question but that any one of 5 or 6 of those names could do that job. Isn't that true, Mr. Harvey?

Mr. HARVEY. Yes; that is true. There were certain reasons why some of those five or six shouldn't have the job.

Mr. FULTON. Wouldn't it have been of some interest to find out which one would do it for the least money? I should think it would be.

General SOMERVELL. And then, if he wastes more than the other man there is no way of telling that, and the amount as compared to the total is so small that all you do is delay the work, and you may cost yourself a great deal more.

Mr. FULTON. That is true of 100 different factors which in the aggregate constitute the job; each one of them is small.

General SOMERVELL. That is right, and if we decide the whole job on each one of these small things we make a mistake.

Mr. FULTON. But I am asking if you give any consideration at all to this one. I don't believe you do.

General SOMERVELL. We don't.

Mr. HARVEY. There are a lot of complications. I know one contractor had a lot of beautiful equipment and a large amount of it, and it was his whole stock in trade. He told us when he got through paying taxes on fee he wouldn't have anything left and he was going to lose all his equipment. When the job was done he hadn't any equipment at all to take another job with. There is a complication that comes up.

Mr. FULTON. I have heard from the contractors the explanation that it doesn't make any difference how big their profits are, the Government takes it all away anyhow, but isn't it true the Government is taxing these people who don't get these big profits?

Mr. HARVEY. But I say there is an angle on the equipment that comes in. That man is going to lose his equipment; when he is done with this job he will lose it.

Acting Chairman HATCH. How does he lose his equipment?

Mr. HARVEY. He had a very conservative bookkeeping method and depreciated his equipment down pretty well, and when he goes on the job he declares the value on it. When the rental equals the value the Government takes it over.

Acting Chairman HATCH. But he has received compensation for the equipment according to his own fixed value?

Mr. HARVEY. Oh, yes; but that equipment is written down pretty well, and another thing, he has to go out and buy it at a time he can't get it.

Mr. FULTON. What does he need it for?

Mr. HARVEY. To take further work.

Mr. FULTON. With the Government?

Mr. HARVEY. No; I mean work. That is just a sidelight.

General SOMERVELL. To sum up my views on the two points you are raising there, (1) whether we should let the cost of equipment influence us in the selection of the contractor, and (2) whether there should be bidding on the fees, or negotiation—

Mr. FULTON (interposing). Not bidding, but an expression of their views so the negotiating committee would have the benefit of competition when the contractor thinks he is 1 of 10 or 20.

General SOMERVELL. With regard to the fees, in the first case when the contractor is selected the question of equipment is discussed in detail and a schedule more or less agreed on.

Mr. FULTON. You mean that he agrees on the price and that isn't changed on the job because of later circumstances?

General SOMERVELL. That is right, sir; and most of it is rented from somebody else. We don't think that is a controlling item.

Mr. FULTON. No one suggests it is controlling, but only that it should perhaps be given consideration and might be controlling in borderline cases, would be in borderline cases.

General SOMERVELL. All right, sir; that is a possibility.

Acting Chairman HATCH. May I ask this: Do you let the contractor fix his fees or does the Board fix the fees? Who fixes the fee?

General SOMERVELL. I fix the fee and it is approved by Mr. Patterson, the Assistant Secretary of War.

Mr. FULTON. As I understand, on that, General Somervell, there is a chart on page 109 of this No. 17, and as I understand it the red dots indicate the actual relationship of the fee on that chart to that line that was drawn.

General SOMERVELL. That is right, sir.

Mr. FULTON. And would that indicate that, for example, if you had an \$8,000,000 job, you would run up the line vertically in the center of the chart to the point where that white line crosses it, and find that you had a fee of about $3\frac{1}{4}$ percent?

General SOMERVELL. Yes, sir.

Mr. FULTON. And that you would try to fix the fee at or around that point, giving consideration to the particular job.

General SOMERVELL. That is right, sir.

Mr. FULTON. And actually the fees of all clustered quite closely to those lines.

General SOMERVELL. That is right, sir.

Mr. FULTON. It occurred to me that a contractor who was building a plant such as I have called, say, a chemical warfare plant, might have a cost of only five million but it might be a very technical and difficult plant, of a nature quite different from anything ever built in the country, and he perhaps ought to be entitled to a considerably larger fee proportionately for the know-how experience that you refer to, than someone who is building a camp that happens to be twice in size the number of dollars but only half the difficulty on an engineering standpoint. Wouldn't that be true, and wouldn't it, therefore, be impossible to draw any line that you would consider to be accurate in all cases?

General SOMERVELL. Yes, sir. This line was drawn by this committee named here, the Army-Navy Munitions Board Construction Committee, as the minimum fee to be paid.

Mr. FULTON. As minimum or maximum?

General SOMERVELL. Minimum.

Mr. FULTON. Why should the Government be trying to get a minimum fee for the benefit of contractors? Why shouldn't we go below it if we can?

General SOMERVELL. We have. Then this fee was recommended as the minimum fee by the committee. Then on jobs that were more complicated there was a 10-percent bracket fixed above that, and on the most complicated jobs, such as this one you described, a 20-

percent bracket, and that accounts for the variation in these dots that you see there. In other words, the fee was actually varied between 100 and 120 percent of this amount shown by the line.

Mr. FULTON. Then I take it when a contractor comes up and is told that he is being considered for a contract, he is told that the views of the War Department are that he should receive a fee which would be in or about this line.

General SOMERVELL. That is right.

Mr. FULTON. And he is not asked whether he has any other or different views?

General SOMERVELL. No; he is practically told that we will give him a job at such-and-such an amount.

Mr. FULTON. He, of course, might try to get the full 6 percent on the theory that Congress said you couldn't get more than 6, so he ought to get as near 6 as he could.

General SOMERVELL. That is right.

Mr. FULTON. But the point I have in mind is this. I have had in mind looking at that that these contractors are getting fees that look to me out of all proportion to anything they ever earned in their lives before, in many, many instances. I have seen cases of people getting four or five times more than they ever got in any single year they operated. Isn't that true?

General SOMERVELL. There may be cases of that kind. Ever since 1930 we have been passing through a period when there has been practically no construction.

Mr. FULTON. But is that any reason why the Government should in effect act as Santa Claus for the contractors who had a depression for 5 years?

General SOMERVELL. That is a pretty strong statement. I don't think the Government is acting as Santa Claus. This committee which made up this suggested schedule after considering what was a fair return for the service to be rendered adopted that line, and that in turn was more or less adopted by the War Department. Now the services rendered bear some relation to the amount of money that is paid. In civil service we classify people and say we will pay them so much for a certain type of job. It may be that is five times as much as the man has ever earned in his life. The same on this; and these jobs have been more or less classified to follow this line as being the proper remuneration for their service.

Mr. FULTON. In fairness to you, General Somervell, you didn't draw the line, did you?

General SOMERVELL. I didn't draw the line, but I don't take exception to it, sir. I think it is all right.

Mr. FULTON. Do you know whether it is all right or not?

General SOMERVELL. I think it is about right.

Mr. FULTON. How does it happen, then, that a contractor in so many instances is getting a fee that is out of all proportion to anything that he ever made?

General SOMERVELL. Probably the biggest job he ever had.

Mr. FULTON. Then I take it you are hiring what you might call, for example, a \$5,000,000 contractor to do a \$20,000,000 job, and you are paying him on a \$20,000,000 basis simply because there aren't any \$20,000,000 contractors who could do the job.

General SOMERVELL. Because there aren't any more \$20,000,000 contractors available, that is right.

Mr. FULTON. But when you take a man who is only a \$5,000,000 contractor and treat him as though he were a \$20,000,000 one, aren't you giving him a gift when you base your fee on the higher ratio, because he isn't selling you the experience—he doesn't have it; he isn't selling you the organization—he doesn't have it; and he isn't selling you the use of the equipment—he doesn't have that either.

General SOMERVELL. Well, he has the management experience.

Mr. FULTON. On a much smaller basis.

General SOMERVELL. On a smaller basis, and he is the best we can get.

Mr. FULTON. And has one superintendent where he should have four, and has one foreman where he should have four.

General SOMERVELL. That is true; that has happened.

Mr. FULTON. But you are paying him a know-how fee on the basis of four, not one.

General SOMERVELL. And he goes out and gets the four.

Mr. FULTON. And he goes out and gets the four by hiring them at Government expense.

General SOMERVELL. That is right.

Mr. FULTON. But that still doesn't affect the fact that his fee is four times what his profit was.

General SOMERVELL. Well, now, that may be so, and I, of course, don't know what the profits were, but I would like to give you some figures here.

Mr. FULTON. Have you asked for the profits?

General SOMERVELL. No, sir; we have not.

Mr. FULTON. I have, and we are getting some of them in.

Mr. HARVEY. Those are minus taxes and the fees you are talking about are not minus taxes.

Mr. FULTON. They have been careful to compare them, so I have had the proper comparisons.

General SOMERVELL. This has been given careful consideration. This curve since the beginning has been changed from a minimum to a maximum. Now the average rate paid these people on construction contracts, based on the work they did, has been 1.7 percent.

Mr. FULTON. That is because of the accident of the Government's underestimating the cost, isn't it?

General SOMERVELL. No matter what the reason is, they have been paid 1.7 percent, and under the law that is all they can get.

Mr. FULTON. And even that is the figure that I refer to as four times anything they ever earned in their lifetime.

General SOMERVELL. That is right; 1.7 percent on \$20,000,000 is a lot of money.

Mr. FULTON. That is right.

General SOMERVELL. But that is an extremely small fee.

Mr. FULTON. Expressed percentage-wise, but an extremely large fee expressed dollar-wise.

General SOMERVELL. That is right, an extremely small fee percentage-wise, and the construction contract and architects-engineers is 2 percent; that is where they do them both. The average of the two is 1.8 percent and the architects-engineer's fee has been four-tenths of 1 percent.

Take Camp Blanding, for example, which is supposed to be a horrible example of everything. The contractor there got a fee of 1 percent as against a fee of 1.4 percent which he got for building the Metropolitan Life job in New York City.

Mr. FULTON. And what was the estimated fee originally?

General SOMERVELL. That doesn't make any difference. I am telling you what he got.

Mr. FULTON. It makes this difference; when you took Starrett Bros. & Eken and told them what you thought it was going to cost, you gave them a fee of 50 percent greater, percentage-wise, than the fee they got cost-wise on the Metropolitan Life Building which you are now comparing this with, and it is only through the accident of the Government's making the mistake in its estimate that we finally did get a fee that can now be said to be a little less than the Metropolitan Life fee.

General SOMERVELL. It is quite a lot less; it is two-thirds of it.

Mr. FULTON. And it was originally quite a lot more. Two-thirds more might be a fairer way to say it.

General SOMERVELL. This is average, now, 1.7 percent, which is very small. Suppose we had been able to estimate these things correctly in the beginning, then the fees which they would have got would have been a lot more than they are getting.

Mr. FULTON. Would have been exorbitant in view of what they got, even as big a firm as they were, on a cost-plus basis in private industry, from Metropolitan Life.

General SOMERVELL. We got the best advice we could get from people who are supposed to know about such things, Mr. John P. Hogan, past president of the American Society of Civil Engineers; Mr. Alonzo J. Hammond, past president of the American Society of Civil Engineers and American Engineering Council; Mr. E. P. Palmer, president of the Associated General Contractors; Malcomb Pirnie, who is a director of the American Society of Civil Engineers; E. J. Harding (he is now dead), and Stephen F. Voorhees, past president, American Institute of Architects. That is what these men recommended as a proper fee. In other words, if I can again make a legal comparison, if you were going to decide on a proper fee for lawyers to do a lot of legal work, you would get the best in the business and ask their advice and they would tell you a certain fee was about right, and that is what you would say.

Mr. FULTON. I don't think so. I think I would ask the lawyer what he would take, and I don't quite see why you should ask the general contractors and the architects-engineers who are to enjoy these fees—they are the presidents of the associations that are to enjoy these fees—what they think is the proper fee, because they are naturally interested in their profession and their connections, and I wouldn't think they would be ungenerous in figuring them out.

General SOMERVELL. I don't think they have been overgenerous. In the first place, the Congress of the United States said 6 percent.

Mr. FULTON. Only to put a ceiling.

General SOMERVELL. If 6 percent was all right, why quarrel about 1.7?

Mr. FULTON. Congress never said, I think, that 6 percent was all right.

General SOMERVELL. They put it in the law.

Mr. FULTON. They said it could never be more under any circumstances.

General SOMERVELL. We have got it 1.7 percent and Congress says 6 percent, which it seems to me is a pretty good margin.

Senator MEAD. In connection with what Congress said, I think it would be interesting for us to ascertain the attitude of the Congress in connection with the amendments to the National Defense Act as it pertains to profits allowed in the manufacture of airplanes and other equipment for the Army and Navy and also the generous treatment in the tax bill allowing them to write off plant expansion.

It occurs to me that the percentages there are very much higher.

General SOMERVELL. They are very much higher, and if I am not mistaken, the Trammell Act has been repealed as far as profits are concerned. It does seem that if people were getting manufacturing contracts instead of construction contracts they would be getting 12 percent.

Senator MEAD. Of course we want you to keep that curve going down until it disappears.

General SOMERVELL. I don't think that is quite fair.

Senator MEAD. No, it wouldn't be, but nevertheless in connection with your studies it would be well to have, on the subject of fees and considerations, considerations including the writing off of plant expansions and so forth, so that we would have the general subject almost under one caption.

General SOMERVELL. We will be glad to give you a study on that, but to sum up my views, you go to the extreme. You take a man and put him in camp and tell him that he is going to save the country for \$21 a month, and on the other hand you take another man and tell him he is going to save the country for \$200 in 3 months. Now, it just doesn't make sense. What you have to do is to realize that you have got two different scales that are measuring these services, and measured on a commercial scale the fees that are paid these contractors and these architect-engineers are very reasonable, in my opinion. But if you follow your line of thought—

Mr. FULTON (interposing). Which is simply to allow them to say what they will take it for.

General SOMERVELL. All right; we will ask each one of them hereafter what he will take it for.

Mr. FULTON. I assume he will look at this chart and ask you to take it back.

Acting Chairman HATCH. It is after 1 o'clock, gentlemen, and we will return this afternoon. The committee will stand in recess until 2:30.

(Whereupon, at 1:05 o'clock, a recess was taken until 2:30 p. m. of the same day.)

AFTERNOON SESSION

The committee resumed at 2:30 p. m., upon expiration of the recess.

Acting Chairman HATCH. The committee will come to order.

General Spalding, was Mr. Harvey through?

Mr. Harvey, had you finished?

Mr. HARVEY. Unless you have something more you want to ask me.

Mr. FULTON. I have nothing more.

Acting Chairman HATCH. Nothing more?

General Spalding, I understand you, as chairman of the committee, are to be heard now. For the purpose of the record, will you state your name and your position?

**TESTIMONY OF GEN. GEORGE REDFIELD SPALDING, CHAIRMAN,
CONSTRUCTION ADVISORY COMMITTEE, CONSTRUCTION DIVI-
SION, QUARTERMASTER GENERAL'S OFFICE, UNITED STATES
ARMY**

General SPALDING. George Redfield Spalding. I am chairman of the Construction Advisory Committee of the Construction Division of the Quartermaster General's office.

Mr. FULTON. I think, General Spalding, you might tell us something of the plans that have been made to make the committee more effective or to make it quicker and easier for you to make your selection, such as the indexes and other things that you spoke of to me.

General SPALDING. Those things, of course, were all done before I joined the committee. I joined the committee on the 18th of February, and it had been operating since about the middle of July.

I found there what I thought to be a very fine file of contractors' applications and of applications from architect-engineer firms. So good was filing that I had no difficulty myself, after a small explanation, in getting any file I wanted if I knew the name of the firm or if I knew the number of the file or if I could just guess at the name of the firm.

The files of contractors were kept separate from those of architects and engineers, that is, the applications were kept separate. In the general file, however, they were combined so as to simplify the matter, and you could go to the file and pick out a file card and find not only the firm's name, but the combinations which he had made with other firms, and some of them were filed alone, and with one other firm who perhaps did a different class of work, and with several other firms, perhaps with the idea of being able to handle in a large group a large contract, thus pooling their resources.

Now, in addition to those general files which, of course, were confidential, the committee had within its own committee room another set of files which were kept confidential to committee members and Mr. Rich and Miss Blackman. Those files covered, you might say, the work sheets of the committee in its selections, and as naturally you would expect, they were filed in accordance with project names. In other words, Camp Blanding had its own file, and you could go into that and pick out the sheets that referred to it. You would find in there the letter from higher authority directing the selection of a contractor and an architect-engineer for a certain job; then you would find the selections which the committee had made, together with any memoranda which the committee had seen fit to place in the file, or a member to place in the file. And then in another and separate file, similarly by project, with those which referred to the Chief of Engineers' work.

You will understand that the Chief of Engineers uses the committee's files as a library of information to himself, and asks the committee frequently for advice as to contractors, but the decision remains with the Chief of Engineers. We are advisory to the Quartermaster General through General Somervell.

Mr. FULTON. Would you tell us how you proceed now to designate the contractor or the architect-engineer, that is, from where, whom, do you receive a request, how is the request phrased, is it general or is it specific, and then how do you operate to designate the group that you select?

General SPALDING. Well, in the ordinary case we receive a specific request in the nature of an order, and, of course, to us. It comes through the contract Board, as a rule, directing us to select an architect-engineer or a contractor—the letters never give both in one letter—for the following project, and then the project is described in general terms, and sometimes, not always, accompanied by more specific information as to the exact project—not always, because in many cases the specific information is rather voluminous and not attached to the file, and we have to look it up later. Then, of course, the request tells us where the work is, where the site is, in what State, the approximate location.

Mr. FULTON. When you said you would have to look it up later, you mean that you are usually given sufficient time so that you may get information on the specific project in order to ascertain the difficulties that that contractor might meet, and to make sure that the one you select is a good man on the particularly difficult points?

General SPALDING. Well, of course, I am speaking of a very few cases of contractors that have come up since I have been on the Board. There haven't been many contractors. Most of the work that has been done since I have been on the Board has been in the selection of architects and engineering firms, and then the engineering and architect firms are selected ahead of time in order to help gain the information which we will need later in describing to the contractors what their job will be.

Mr. FULTON. Yes; you mean that if the architects had done their work you would know much more what the difficulties would be for a contractor.

General SPALDING. That is right.

Mr. FULTON. With respect to architects, though, you would want to know, in general, as much as you could about the project so that you could get a firm which had specialized, as nearly as you could, in that field.

General SPALDING. Yes, sir; and we get it from the engineering division. Sometimes, as I said, it is rather voluminous to attach to the original request slip and is furnished in larger detail by the engineering division.

Mr. FULTON. And now that you have this direct data, how does the committee approach the task of selecting the contractor?

General SPALDING. I think they proceed very intelligently. I would like to explain, when I describe the system that we are following, that there has been no change ordered by me in the procedure. What I did after I had been a member of the committee for a few days studying their procedure was to write down—and I remember it pretty well—what the procedure was, and inasmuch as I generally approved of it, there was no change made. And that procedure dictated largely by policies laid down by the Assistant Secretary of War, now the Under Secretary of War, was as follows: Before going into that, however, I want to tell you one other thing. The files of the architect-engineers' and also of the contractors' applications are

by State, and we have mimeographed copies of all of the architectural and engineering firms in the State, in each State, who have filed with us.

Mr. FULTON. I believe this is a set of those that was furnished.

General SPALDING. And also of all the contracting firms that were filed with us.

Mr. FULTON. These would be just lists of the names of the contractors, separated into different States for a convenient index for the committee?

General SPALDING. That is correct, and for use by the committee as work sheets.

Now, in preparing those mimeographed files, you will find in the furthest column to the right a brief description of the class of work which they are supposed to be able to handle. Now, those are not to be taken too seriously, because they were made up in a hurry by clerical aid and not by experts, and what I wanted was to get the list, what the committee wanted was to get the list, more than the qualifications. The qualifications as given in that right column may be subject to criticism.

Mr. FULTON. Were these lists made up after you came in as chairman?

General SPALDING. These mimeographed lists?

Mr. FULTON. Yes.

General SPALDING. Yes.

Mr. FULTON. Until that time, how would they go about finding the particular contractors among the four thousand-odd whom they would want to consider? As I understood General Somervell, there would be about ten or twelve that they would ordinarily consider for each project, and you would have to have some way of reducing it from four thousand to ten or twelve.

General SPALDING. Yes, sir. Well, Major Harvey, who was chairman, had a book, and still has it and still keeps it, which has all the information that is contained on those mimeographs, except the right-hand column, "Classification of duty" and he could give you the people in a State from his book, which he also has in a different form arranged alphabetically.

Mr. FULTON. That would be, then, a book which would list the names and addresses under each State.

General SPALDING. That is right.

Mr. FULTON. And also alphabetically, but not the qualifications. That would be too large for such a book.

General SPALDING. That is right.

Mr. FULTON. Now, as I understood you when we were talking the other day, you have since undertaken to have for each State what you might call an abbreviated summary of each contractor's particular qualifications, and you try to put them roughly into groups to indicate the type of work they can do and their qualifications generally in the fields in which they operate.

General SPALDING. Well, that is rather a hope. We are proceeding along that line. We have only two members of the staff that are constantly at work on that. They have been doing pretty well, but they have not by any means covered all of the States, and they are working directly on the contractors rather than the architectural and engineering firms, because we thought that was more important.

Mr. FULTON. When you get that done, you will have available a book with respect to each State which will be of assistance, at least, in breaking down the large number of contractors into a comparatively small group who could be given real consideration.

General SPALDING. That is correct; yes, sir.

Mr. FULTON. And what I was trying to ascertain was how they did that break-down from the very large group of several thousands, although of course they naturally would take only those in the area or near the area—

General SPALDING. That is right.

Mr. FULTON. Into the small group of 10 or 12 who would be given detailed consideration.

General SPALDING. Well, may I tell you our present procedure, and then perhaps a few remarks as to how it differs with that which existed just before it was put into effect?

Mr. FULTON. Certainly.

General SPALDING. Our present procedure is about as follows. We take the project and site it as closely as may be. We don't always have the exact location. Then we get the mimeographed pamphlet which refers to that particular State. This copy, by the way, was written out by me, in my own handwriting—it has since been type-written—without any help from anyone and describes what I thought was the procedure at that time.

Perhaps it explains a little more briefly than I would be able to do it by offhand conversation. There is a little repetition:

1. Applications which have been received are placed on file and kept up to date by supplementary evidence which applicant may mail in or may present in person.

2. All applications are grouped by State and mimeographed copies of all applicants from all States are available in reasonable numbers for use by committee and others. They are not available for general distribution as the committee has not the facilities at present for making a larger number of copies.

3. In advance planning, the committee proceeds to consider any project of which it has advance notice by considering applications from the State in which the project is located. If thoroughly competent talent is not to be found locally, the radius of search is extended as far as may be necessary.

4. Also, as a step in advance planning, we know definite projects are before the committee, and effort is being made to examine, classify, and cross-file all applications in a manner to produce a library of dependable information as to architects, engineers, and contractors, and their special as well as their general qualifications. Naturally it is necessary to adopt some general system of classification and the committee freely admits that in going over the applications in the first instance, firms are classified as follows:

We haven't disclosed this publicly before, but I see no reason why we shouldn't do it.

Mr. FULTON. I don't think it necessary to refer to individual companies whose reputations might suffer, but the general method is certainly all right.

General SPALDING. We have what I call the diamond class, those which have filed insufficient information. These are temporarily put in the diamond class. They may be diamonds in the rough, but before we can consider them seriously they must give us more information in reply to our questionnaires.

Mr. FULTON. And that would be up to them, would it not, General? You don't write and ask them?

General SPALDING. Oh, yes; if they don't send in enough information we have a form letter which is sent out saying that their file isn't complete, and they should answer the questionnaire.

In this class also are placed consulting engineers who have no organization but may be very valuable for their own special knowledge and ability. They are polished diamonds, to be selected and used with care, and not wasted on some ordinary job.

The circle class. These are firms as distinguished from individuals who maintain a small force of key men for local or special work. Frequently they are potentially able to handle a larger job than they have been handling in the past, and in such a case they are so classified. By that I mean that we would put a plus inside of the circle if they were a little better than the circle, or a minus if they were not quite as good.

The next is the square class. Firms in this category are larger than those in the circle class, have a record of larger undertakings, State-wide, perhaps, or even regional. Such firms are potentially able to handle even larger work, and at a further distance from their usual area of occupation, are indicated within the square by a plus, or if they drop a little below by a minus inside of the square.

Next is the triangle class. These are large firms nationally known. They may be highly specialized or they may be capable of doing almost any kind of work. They have resources enabling them to meet great emergencies.

By no means have all applications been thoroughly examined and classified in such a manner, and changes in classification will be made from time to time, generally after actual presentation of new and supplemental data, and such changes will be formally recorded. Any applicant who desires it may secure an engagement to present his case to the committee, but this is not necessary to the consideration of his application. Before a selection is finally made, however, the applicant under most serious consideration will usually be sent for.

That is because we don't want to make an error and pick a man who is perhaps not up to his record.

Mr. FULTON. And you want to find out what other contracts he has, too, in case they haven't sent that in to you.

General SPALDING. That is true.

Mr. FULTON. General Spalding, did I understand that at the time you came in not all applicants had been graded into these various classifications?

General SPALDING. No; and they are not all so graded yet.

Mr. FULTON. In grading them, does that mean that the committee as a whole would consider them and would then determine that they would go in, say, the triangle class?

General SPALDING. Well, yes, sir; except that in the staff work that is now being done to help the committee that grading is not official. It is not the committee's work, it is the work of the staff.

Mr. FULTON. The staff would make a tentative selection and then would give the committee its reasons, which the committee would either adopt or reject as it saw fit?

General SPALDING. Yes, sir.

Mr. FULTON. Well now, when you have that gradation, I suppose that when you have a given job you try to get the best one by looking into the lists of the ones in the various classifications for that area.

General SPALDING. Well, yes. It depends a little bit on the time, though. If we have the time, and if the State is one in which we have not classified all the people, we try to go over the applicants of that State.

Mr. FULTON. In other words, if you have the time you would both look at the ones that had been classified and look at all of those who had not been classified?

General SPALDING. Yes. As I say, you might find a diamond. We might find just what we are looking for.

Mr. FULTON. Suppose you haven't time. You look at only those that have been classified?

General SPALDING. Yes, sir.

Mr. FULTON. And you say that applicants can come in, but they need not, if they see fit?

General SPALDING. That's right.

Mr. FULTON. As I understand it, you gave a part of each day to conferences with these people.

General SPALDING. That's right.

Mr. FULTON. Have you found it necessary to have a number of such conferences every day?

General SPALDING. Oh, yes.

Mr. FULTON. And could you tell us generally whether contractors are desirous of obtaining these contracts or not? Do they keep coming in and seeing you?

General SPALDING. Some of them come in looking for contracts, others come in—during this afternoon session, which is devoted to listening to people who want to appear before the committee——

Mr. FULTON (interposing). That is, every afternoon?

General SPALDING. Yes, sir; except Saturday.

Mr. FULTON. Except Saturday?

General SPALDING. We find, of course, just as you do in all public bodies, all sorts of people coming in, some who want contracts definitely; others who want to get information, and some who really, I think, come in to explain their own situation and indicate that they are willing to do what the Government wants them to do. In other words we have, just as we have among individuals, people who come up and volunteer their services, and others who come up looking for a remunerative job. Contractors' firms are just about the same as people.

Mr. FULTON. And how much time on the average can your committee give to each of these contractors, that is, to each applicant?

General SPALDING. Well, that depends on the number of applicants that appear. We sit every afternoon and we try to give the men or firms about 15 minutes. That was the original idea. Well, if there are so many applying on a particular day, we don't like to tell them to come tomorrow because frequently they don't want to stay all night, they want to go home, so we squeeze them together a little bit, and Mr. Acomb, who is the aide to the committee in arranging for these receptions, uses his own judgment in closing them up a bit and asking them if they would please try to finish in 10 minutes, or sometimes he has got as low as 8, I think, since I have been there.

Mr. FULTON. And that is because of the great number of applicants that the committee has to hear?

General SPALDING. Yes; but that doesn't mean we kick them out at the end of 8 minutes, because we don't hold a watch on them. He just asks them not to consume any more than 8 minutes if they can avoid it. Sometimes we keep them in—and he scolds us for doing it—longer than we ought to.

Mr. FULTON. That, then, would be of use in helping the committee to determine what classification to give that particular contractor?

General SPALDING. Oh, yes; except that we try to avoid being over-sold.

Mr. FULTON. With respect to, say, last September, September 1940; when many of these contracts or perhaps even the majority were being

let, how much time would the committee on the average have had to confer with the contractors to be selected for a given job?

General SPALDING. In those days? Well, I can't speak from my own knowledge. You see, I didn't get to Washington until February 18.

Mr. FULTON. I noticed, taking Fort Meade as an example, that the Quartermaster General suggested that a contractor be selected on the 17th, and the contractor was selected on the 19th. Have you any way of knowing whether that would be an average time that would elapse, or less or more than that?

General SPALDING. Well, as I say, we have had very few contractor selections since I have been on the Board. We had one sent down to us today. We haven't made a selection, but I know that the general is in a hurry for it; however, we are not going to give it to him before we have done our job.

Mr. FULTON. I notice with respect to Fort Meade, for example, that all the information that your committee had was that there was to be temporary construction at Fort Meade. Would that be sufficient to enable you to ascertain what contractors would be best qualified to do the job?

General SPALDING. Well, I suppose unofficially the committee must have known about the number of men they had to house and the committee was very fortunate in having a man like Harvey on it, who had been through one war in the Construction Division, who had built several of these camps and knew about what the job was. He probably knew as much as the fellow that wrote the paper, and maybe more.

Mr. FULTON. Maybe more, because I am not sure they had a paper.

General Spalding, I couldn't find, and I don't believe you could find, in your files, any description even of the total number of people that would have to be housed at Fort Meade. Have you been able to locate one since?

General SPALDING. I haven't looked. You were there the other day and I picked out of the file what was there, and I haven't looked for anything else since.

Mr. FULTON. Do you agree with me that a paper that I found, or rather that you found for me, simply said there would be a temporary construction at Fort Meade?

General SPALDING. You read it to me, sir; I didn't read it.

Mr. FULTON. Further, we couldn't even ascertain whether it would be a tent camp as distinguished from a barracks camp, except that we thought that, being that far north, it probably was a barracks camp.

General SPALDING. Well, I think Mr. Harvey is right here, and isn't it good legal procedure to get the best evidence? I am not a lawyer.

Mr. FULTON. If you prefer, we could ask Mr. Harvey these questions, as he could probably answer from recollection.

General SPALDING. I think he has a paper that he just handed me here.

Acting Chairman HATCH. Do you have any questions?

Senator BALL. No.

Mr. FULTON. Those are all the questions I had, General Spalding.

Acting Chairman HATCH. I think your suggestion is very good, General, that we ought to have Mr. Harvey on this particular point,

since he does have first-hand information about it. You may be excused.

(The witness, General Spalding, was excused.)

Acting Chairman HATCH. Mr. Harvey, will you come to the stand, please?

TESTIMONY OF FORREST S. HARVEY, MEMBER, CONSTRUCTION ADVISORY COMMITTEE, QUARTERMASTER GENERAL'S OFFICE—Resumed

Mr. FULTON. Mr. Harvey, did the committee have any information other than that which is contained in its files with respect to Fort Meade and the various other camps that were treated by similar directors?

Mr. HARVEY. No, that is all we had. That gave the number of men and there were no estimates at the time we made the nomination, as I recall. We just had to use a cost per man with this number of men, and arrive at approximately what the job was going to amount to.

Mr. FULTON. And that cost per man was this World War cost which General Somervell has talked of this morning as being quite completely inaccurate.

Mr. HARVEY. It wasn't the World War cost, it was an old one arrived at by using some index on the World War prices, I believe.

Mr. FULTON. Just where in that paper does it even state the number of men?

Mr. HARVEY. It says "967 officers, 11 warrant officers, and 19,021 enlisted men."

Mr. FULTON. Might I have a copy of that? That isn't the one that I received.

Mr. HARVEY. This is the only one we have. We can have it copied and furnish it to you.

Mr. FULTON. I mean, might I look at it for the time being?

Mr. HARVEY. Oh, yes.

Mr. FULTON. And it also refers to hospitalization, doesn't it?

Mr. HARVEY. Yes, sir.

Mr. FULTON. And temporary clinical and surgical facilities to accommodate a garrison of an eventual strength of approximately 25,000. As I understand it, the present design is for about 18 or 19 thousand, isn't it?

Mr. HARVEY. I don't know, offhand.

Mr. FULTON. Isn't that true, General Somervell, according to your most recent report?

General SOMERVELL. Just let me look; 23,088.

Mr. FULTON. Then the figure is approximately the figure that was referred to here.

General SOMERVELL. Yes, sir.

Mr. FULTON. Did you receive at the time, or had you had before that, a manual which would list the general problems that would be met with in connection with camp construction in general?

Mr. HARVEY. No. We were all quite familiar with camp construction as it was done in the last war, at least. We had all worked on those camps.

Mr. FULTON. We have heard a great deal this morning about the differences which had been inaugurated through studies.

Mr. HARVEY. Oh, certainly.

Mr. FULTON. That took place subsequently. Were you informed of those differences at all?

Mr. HARVEY. No, no. I think at that time they were using something like \$450 a man for estimating the cost of those projects.

Mr. FULTON. Now, with respect to the camp itself, I noted on Camp Edwards that there was a 15-mile railroad that had to be constructed, which was, of course, not usual with every camp, so that I assume it would be important to know something about the nature of that construction. At Fort Meade it turned out that there was a great deal of work on an undercut sewer that had to go through a hill, a divide between two streams, and at Blanding there was quite a little trouble with water that had to be pumped out. In other words, each camp has its individual problems, has it not?

Mr. HARVEY. Why, in minor details; yes.

Mr. FULTON. Would you call those minor details?

Mr. HARVEY. I wouldn't say that a 15-mile railroad was any major problem for any good contractor.

Mr. FULTON. I see; but in selecting contractors wouldn't you judge on the basis of whether the things they specialized in were the special difficulties of the situation they were going to be working in?

Mr. HARVEY. Of course the major part of the work is construction of temporary wooden buildings.

Mr. FULTON. Wasn't one of the largest elements of work at Fort Meade the necessary grading and road work and utilities work, and didn't that constitute one of the greatest problems that Consolidated Engineering had?

Mr. HARVEY. I am not familiar with the construction there, with what happened.

Mr. FULTON. At any event, did you, for example, in looking at their file, note whether they were builders of buildings or whether they were people noted for their grading work?

Mr. HARVEY. Well, we generally selected building contractors for cantonment construction, men that did building work. Sometimes grading men were put with them. Where they were not put with them it was assumed, of course, that they would get grading equipment and grading supervision to take care of that part of the work, which is the minor. The utilities and the grading work are the minor portion of a job. It never runs over 25 percent, I don't believe.

Mr. FULTON. That particular firm was a very well-known and very reputable and experienced firm, wasn't it?

Mr. HARVEY. Are you talking about Meade?

Mr. FULTON. Consolidated Engineering.

Mr. HARVEY. Yes.

Mr. FULTON. I didn't mean by mentioning it to indicate that there was anything wrong with the firm, but they were contractors who had largely sublet all their other work, grading work, and had very little grading equipment. Isn't that true?

Mr. HARVEY. That is probably true.

Mr. FULTON. What I wanted to know was whether, at the time that they were selected, the committee of which you were a member was informed generally as to the nature of the grading problems or the lack of grading problems that would be met with at Fort Meade.

Mr. HARVEY. We couldn't have known, because the plan of the camp, even the location of the buildings, hadn't been determined upon at that time. Almost the same day the contractor went there, the engineer went there, and until he had done some of his work it wasn't known just where the buildings were going to go, how much grading there would be.

Mr. FULTON. As a matter of fact was it not several weeks later before they determined that the buildings should be put on this hilly site where they now are?

Mr. HARVEY. It must have been.

Mr. FULTON. So, in determining the contractor you couldn't have had in mind the particular problems that that contractor would meet?

Mr. HARVEY. Not entirely. We know that there was from 15 to 25 percent in utilities in one of those jobs.

Mr. FULTON. But you wouldn't know whether it was going to be a difficult grading and utility job or an easy one; and with respect to a camp like Blanding you had again a nationally known contractor, Starrett Brothers & Eken. Did you have in mind at the time you made that selection the problems they would have with respect to the water that had to be removed, and the muck and otherwise?

Mr. HARVEY. No; none whatever.

Mr. FULTON. If you had, would the fact that they didn't have any experience to a great extent with that particular type of problem have influenced you?

Mr. HARVEY. I don't think so. I think a firm like that would be expected to overcome those difficulties. We have had the experience that if they don't have in their own organization the equipment and men to do it, they certainly are businessmen and know where to go and get it.

Mr. FULTON. In other words, you would select a large, well-known firm on its general reputation, with the expectancy that if they weren't equipped for the problems they would know where to get the men to do it?

Mr. HARVEY. Bearing in mind that utilities are a minor portion of the total job.

Mr. FULTON. They turned out to be a rather expensive portion in both of those camps.

Mr. HARVEY. They run into money, I grant you, but I don't think in hardly any case they ran over 25 percent of the total cost.

Mr. FULTON. When you were selecting these, did you take into consideration the possibility of hiring contractors to do the grading work as distinct from the building work?

Mr. HARVEY. Are you talking about that particular case?

Mr. FULTON. For any of them.

Mr. HARVEY. Oh, yes; we did in a number of cases combine a building man with a grading man in order to give a better rounded working group.

Mr. FULTON. When you found a contractor who was an especially good building man but who was a very large and well-known contractor, did you give him the total contract without reference to the fact that he might not have been experienced in grading because he usually subtlet his grading work?

Mr. HARVEY. After all, it is a management contract and the contractor that has had experience on large work, of course, should know

how to arrange to get the work done that he is not particularly expert in himself. It is just a business proposition.

Mr. FULTON. But that really means he might have another contractor, and in some cases you did have contractors with additional fixed fees, did you not?

Mr. HARVEY. I don't know about that. Usually I think when the contract board negotiated with a contractor they made him specify what work he was going to subcontract and his fee was adjusted accordingly at that time.

Mr. FULTON. Taking a specific camp like Meade, was there any specification at this time as to what subletting there would be done?

Mr. HARVEY. I don't know. The contract board would have that record. We didn't have that. It was the practice to determine at the time the contract was negotiated how much work they contemplated subletting, and the fee was adjusted accordingly.

Mr. FULTON. But how could you determine that when there were no plans, and in fact wasn't that determination frequently made several weeks after the contract was negotiated?

Mr. HARVEY. Perhaps on some items; I don't know.

Mr. FULTON. Wouldn't it have to be on many items?

Mr. HARVEY. Either that, or they would have to arrange to hire a superintendent to take charge of that type of work and get the equipment and do it on that basis. It doesn't necessarily have to be subcontracted.

General SOMERVELL. If I can interpose a second, the Contract Board questions a contractor as to his customary procedure. There are certain types of work, for example, heating, plumbing, electrical work, and frequently the roofing, which some firms habitually subcontract.

Mr. FULTON. Also grading.

General SOMERVELL. Yes. I was coming to that—and grading also, if it amounts to a considerable part of the job.

Now in discussing the contract with the three, or finally with the one, the question is asked, "What work do you intend to subcontract?"

They say, "Well, we are going to subcontract all the heating and plumbing and so on." Then they make a rough estimate of what that is going to cost and deduct 75 percent of that part of the man's fee from his fee.

Mr. FULTON. So that would mean, then, that you would not have duplication of fees. In other words, you wouldn't pay the primary contractor a fixed fee based on the whole job, and then subsequently have him have subcontractors who would receive additional fees, making an aggregate of a greater or higher fee than you originally had in mind.

General SOMERVELL. Yes, sir; there is duplication of that 25 percent. We only subtract 75 percent of the cost of plumbing, for example, if we are going to subcontract the plumbing. That gives him 25 percent for bossing the subcontractor. That is what it amounts to, instead of 100 percent for supervising all of the work that the subcontractor does.

Senator BALL. How much subcontracting was done on these cantonments?

General SOMERVELL. Pretty generally, sir, all of those specialties that I just outlined, the plumbing, heating, and electrical work, and

sometimes a good deal of the sewer work had been subcontracted. Those trades are almost always subcontracted, and at times the grading has been done. As a rule, the general contractor likes to do his own grading. That is where he makes his money, as a rule. So they have superintendents and they have people who know how to handle the grading.

Now, in general, also, all of the railroad work is subcontracted, sometimes to the adjoining railroad, sometimes to a railroad contractor.

Senator BALL. How much supervision did your office have over the negotiations of these subcontracts? Did you see that there was some competition on price?

General SOMERVELL. Yes, sir. There are a certain number of subcontracts which are on a fixed-fee basis. The majority of them, however, are on a bid basis, and the award on the subcontracts in those cases is given to the low bidder. In other words, when they get to the point where they can rough out the electrical work in sufficient detail to permit a man to submit a bid, then they ask for bids. They are required to get at least three bids, and the award is made to the low bidder in practically every case. There are just a few cases where they haven't been made to the low bidder.

Senator BALL. Your fixed fee on the main contract is set when the contract is let?

General SOMERVELL. Yes, sir.

Senator BALL. And then the final amount of these subcontracts, of course, the exact amount, is not determined until probably several weeks later, when they are let. Is there an adjustment made in that 75-percent deduction in case there is quite a difference, such as at Blanding, where your utilities ran pretty high?

General SOMERVELL. That is estimated in the beginning, and the amount that that varies is not considerable. In other words, we can guess pretty well on the basis of previous experience about what the electrical work is going to run in percentage of the total, what the plumbing is going to run, and that is the way it is done. Am I right on that?

Mr. LOVING. It is recognized that it is general practice for the principal contractor to sublet the mechanical work, and adjustments have been made—

General SOMERVELL. The Senator's question was not that. You make a deduction of 75 percent of something. Now he wants to know how you arrive at that something, and I tell him it is based on the previous experience we have had as to what these utilities are going to cost out of the total contract.

Senator BALL. What I wanted was how that was adjusted in case your estimate proved very much too low or too high when your actual contract was begun.

Mr. LOVING. There have been no adjustments on that point.

General SOMERVELL. I don't think so.

Senator BALL. I was interested at Meade; the contractor was telling us something about his troubles in getting his equipment because he was competing with contractors at Belvoir and Aberdeen and several naval jobs in the same vicinity. I wondered if you had some recommendation that might solve that situation. It appears that the Government, on several different jobs, through these fixed-fee

contractors, is simply bidding against itself and bidding the price of this equipment up, and in some cases it apparently is pretty high.

General SOMERVELL. It undoubtedly has happened in some cases. The one you cite is one, and the other is down in southern California, where there are a number of jobs, both Army and Navy, in that general vicinity, and now that we have our quartermasters to look for those things I think we can regulate it in the future. At least, that is the present plan.

Senator BALL. Are you trying to work out some plan whereby you won't have that situation?

General SOMERVELL. It is intended to have the zone quartermaster, when he has a condition of that kind, direct the contractor as to how he shall proceed. In that way he can see that they are not bidding against the other people, and he gets bids and knows what is going on.

Senator BALL. How about this situation that might arise. As I understand—I have read your contract—you have a recapture clause, where the rental equals so much of the contract or the purchase price. In case only 50 percent of that purchase price is paid in rentals on one job, but then the equipment is moved to another Government job but under a different contractor, I can conceive of cases where the Government might in the end pay 150 percent.

General SOMERVELL. That might have happened in the beginning and undoubtedly did happen in one or two cases. I wouldn't say it got as much as 150 percent, but we paid over 100 percent without recapturing some of the equipment. That didn't happen very often, and the way we are handling the thing now it can't happen, because we watch it, and when the equipment is transferred from one job to another it is required that the equity that the United States has in it is also transferred.

Senator BALL. Transferred?

General SOMERVELL. Yes, sir.

Senator BALL. That is good.

How about this other situation at Meade, where the Secretary of Labor set a wage scale for carpenters of \$1.25 an hour, and just a comparatively few miles away, at Belvoir, the scale was \$1.625; and according to some of the dope, all of the best skilled men all went to Belvoir, and Meade had to take whatever they could get?

General SOMERVELL. I think that is a fair statement of the situation.

Senator BALL. What can be done about that?

General SOMERVELL. The only thing that can be done about it is to call the Department of Labor's attention to it and ask for an adjustment. The wage scale that was set up for Belvoir is the Washington scale, and the wage scale set up for Meade is the Baltimore scale, and it just happened that Meade was right on the border line between Baltimore and Washington, and hence we had that competition. If Meade had been close to Baltimore, I don't think it would have been so severe. There is no question, however, but that that situation did arise, and the only way that I know to correct it is to ask the Department of Labor to make an adjustment.

Now, if we do that, it seems to me the inevitable result is going to be that what we will do is raise the wage scale at Meade.

Senator BALL. Maybe they ought to even them up.

General SOMERVELL. I think so.

Senator BALL. Has that occurred in any other area, General?

General SOMERVELL. Yes, sir; that occurred in southern California. We have an arrangement with the Navy whereby we won't compete against each other, but before we got that working it did occur.

Senator BALL. How about this situation that arises where some of the early jobs were let on a competitive-bid basis? I talked to one contractor who had one of those, and nearby there was one of these jobs on a fixed-fee basis, where he had been permitted or ordered to pay a scale of 12½ cents higher than the going wage scale where this fellow was, and he was losing all his work.

General SOMERVELL. That happened, sir, and as a result he raised his wages to conform to the higher scale. He submitted a claim to us for the difference, which I think is a just claim, and I have so recommended to the General Accounting Office to allow that claim.

Senator BALL. Otherwise it is just a squeeze on him, because he has no way of passing the increase on.

General SOMERVELL. That is correct, sir.

Acting Chairman HATCH. Have you anything further, Senator?

Mr. FULTON. With respect to Camp Blanding, do you have there the sheet that you had in your files that related to the selection of the contractor?

I understand you had no sheets in your files showing the eight or nine contractors first considered, before you narrowed it down to three at Camp Blanding.

Mr. HARVEY. That work sheet is missing from the file. When we first started, I don't know that we kept them all.

Mr. FULTON. Did you personally recollect that there was such a work sheet?

Mr. HARVEY. I couldn't swear that there was.

Mr. FULTON. And do you recollect that 9 or 10 contractors were considered for that Camp Blanding job, or were only 3?

Mr. HARVEY. Oh, no; we considered most of the big firms in New York and Chicago, I think. Of course, that was one of the early jobs and those jobs looked awfully big in those days. They look pretty small now, a \$10,000,000 job.

Mr. FULTON. It turned out to be a lot bigger than \$10,000,000, didn't it?

Mr. HARVEY. That is true, but \$10,000,000 to be done in 3 months looked like a whale of a job, and we were scared to death to put anybody on it but pretty big companies.

Mr. FULTON. Without referring to the names, I believe that the three names you did select for Blanding were two New York firms and one Chicago firm; isn't that correct?

Mr. HARVEY. I think so.

Mr. FULTON. And no firm within 1,000 miles of the camp was among the three? Now, do you recall whether firms within 1,000 miles of the camp were among the eight or nine that you considered?

Mr. HARVEY. Well, we didn't find anyone in Florida, and as long as we had to go out of the State in that instance we thought we might just as well go to New York or Chicago and get as large a firm as we could. It was the second largest job that we had in that first lot of camps, and I think the estimate was somewhere in the neighborhood of ten million, to be done in 3 months, which, as I say, looked pretty large at that time. Since then much larger jobs have been done in the same length of time.

Mr. FULTON. At any event, no southern firm was among those that you considered for the camp?

Mr. HARVEY. I haven't the record; I can't remember. I think we went over the southern firms. Of course, a great many of the camps were located in the South, and it was definitely certain that southern contractors were going to get all of their share of the work anyway.

Mr. FULTON. But there is nothing in your records which indicated that any southern firm was considered?

Mr. HARVEY. The record doesn't show it. There was a work sheet on that, and it is not in the file now.

Mr. FULTON. And you recall there was such a work sheet?

Mr. HARVEY. I couldn't swear that there was. I think there must have been. We always made a practice of writing out a list of names that we selected from.

Mr. FULTON. Are there any other camps in which those work sheets have been lost or as to which there are no work sheets today?

Mr. HARVEY. I don't know, without going through the files.

Mr. FULTON. In general, an effort has been made to preserve them?

Mr. HARVEY. Yes, sir. Of course, that was one of the first ones we had; I think it was the second job we had, and we weren't as well organized as we were later.

Mr. FULTON. The firm which you did select informs me that it had a practice of not furnishing equipment. Did you know that at the time?

Mr. HARVEY. Oh, yes.

Mr. FULTON. So that you were taking a firm from New York which would go down there without any equipment.

Mr. HARVEY. We bought them and took them for their management ability. As I said this morning, I don't think that was so very important. It has some importance, but no firm has enough to equip one of those jobs.

Mr. FULTON. This one didn't have any. Isn't that correct?

Mr. HARVEY. That is true of other firms doing very large jobs.

Mr. FULTON. It is correct that you were taking a firm from over 1,000 miles away which didn't propose to put any equipment in.

Mr. HARVEY. Some of the best contractors in the country never have any equipment at all. They sell it immediately, as soon as the job is finished.

Mr. FULTON. And with respect to this stone contract down at Camp Blanding that has been the subject of controversy, was that discussed in any way with your committee?

Mr. HARVEY. No. That was a detail that arose after they started the work.

Mr. FULTON. And as far as your committee was concerned, the stone contract was not even known?

Mr. HARVEY. That was a matter to be handled locally by the zone quartermaster.

Acting Chairman HATCH. That is all, Mr. Harvey.

Is there anything more from General Somervell, gentlemen?

Mr. FULTON. I have no other questions.

Acting Chairman HATCH. That is all, I think, General Somervell.

TESTIMONY OF HARRY W. LOVING, CHAIRMAN OF THE CONTRACT BOARD, WAR DEPARTMENT

Acting Chairman HATCH. Will you state your name and position for the record?

Mr. LOVING. Harry W. Loving, chairman of the Contract Board.

Acting Chairman HATCH. Do you have a prepared statement that you wanted to make?

Mr. LOVING. I have not.

Mr. FULTON. I would like to develop from General Somervell one point. Were your predecessors, those who preceded you, engineers?

General SOMERVELL. I don't know what General Hartman's background was. He certainly had a great deal to do with construction. He was in the construction division in the last war. I don't think he is a graduate engineer. I am sure General Seaman is not a graduate engineer—wait a minute; I am not sure of that. I just don't know. I first met him in 1915, at which time he was quartermaster of the Twentieth Infantry, which had nothing to do with construction, but whether he is a graduate engineer or not I don't know.

Mr. FULTON. When did General Hartman succeed General Seaman?

General SOMERVELL. I think it was about a year ago.

Mr. FULTON. So he was in charge until about a year ago.

Senator BALL had inquired concerning their engineering experience and construction experience. As I understood you this morning, the Quartermaster General's Division had constructed such barracks and housing as there had been occasion to build on such permanent posts as we had building of.

General SOMERVELL. Yes, sir; and also all the cantonments during the last war.

Mr. FULTON. But they had not engaged in the type of construction that the Engineering Corps has been doing for the last 20 years?

General SOMERVELL. That is correct.

Mr. FULTON. And there would be in the Engineering Corps a much greater or much larger group, at least, of qualified engineers?

General SOMERVELL. That is right; sir.

Mr. FULTON. But statutory requirements gave the Quartermaster General's Division the authority and the duty to construct camps. I believe that was in 1920.

General SOMERVELL. Yes, sir; and then, of course, they have been doing it ever since they had an Army.

Senator BALL. What I was wondering was whether it was a policy or rule of the War Department or Army, whichever handles this, to staff the construction division of the Quartermaster General's office with men assigned from the Corps of Engineers.

General SOMERVELL. No, sir; I think this is the first time it has ever been done.

Senator BALL. Do you know whether it will be a policy henceforth?

General SOMERVELL. I hope we will do it well enough for it to become a policy.

Mr. FULTON. Mr. Loving, would you briefly state for the committee as to how your particular committee operates, from whom it receives its directions, with respect to negotiation and how it carries it out?

Mr. LOVING. Our functions commence upon receipt of direction authorizing the construction of a particular project on a fixed fee

basis; when we receive that information we, on behalf of the Chief of the Construction Division, make a request on the Construction Advisory Committee.

Mr. FULTON. Which was the one General Spalding and Mr. Harvey represented?

Mr. LOVING. That is correct. Asking that they recommend the three firms considered best qualified to handle a particular project. When the request is received heretofore we have made a comparative analysis of the experience, financial resources, equipment available, organization available, type of work handled, and upon completing that analysis we submitted our findings to the Chief of the Division with our recommendations that this appeared to be the best contractor of the three recommended for the particular project.

Acting CHAIRMAN. Do you always limit yourself to the three recommended?

Mr. LOVING. We have, sir.

Mr. FULTON. And in making that analysis, is that in writing or is that oral?

Mr. LOVING. In most cases it is in writing.

Mr. FULTON. I mean the analysis as distinct from the conclusion.

Mr. LOVING. In most cases the analysis has been made on an analysis form which we prepared early in the program. However, our cases on which we didn't have time to make the written analysis, we secured from the committee in those cases the record filed by each firm with a Dun & Bradstreet credit report, with a report from the Bureau of Contract Information, and secured additional information through personal contacts, all of which we reviewed and reached a conclusion that a particular firm appeared best qualified for the job.

Mr. FULTON. So that in some cases you have a written report in the files and in others you, by reason of lack of time, did not?

Mr. LOVING. That is correct.

Mr. FULTON. And would you tell us the names of the other members of the committee and something of their background with respect to the organizations that they have worked with?

Mr. LOVING. As at present constituted?

Mr. FULTON. Or as originally constituted, and then later bring us down to date.

Mr. LOVING. From the beginning in July there was no committee. I was directed by the Chief of the Division to make these analyses and to submit a recommendation to him as to the firm considered best qualified in each case. I, however—Maj. E. G. Thomas, who is now Colonel Thomas, Capt. E. Kirkpatrick, and Mr. F. G. O'Brien, who are my principal assistants, to collaborate with me in making this review and arriving at a conclusion as to the firm which we considered best qualified.

Mr. FULTON. With those Army men as distinct from civilians?

Mr. LOVING. Two of them were Army men; one was a civilian.

Mr. FULTON. That is, they were in the Quartermaster General's Corps before this emergency arose?

Mr. LOVING. The two were, yes, sir.

Mr. FULTON. And what was the background of the civilian from the standpoint of experience?

Mr. LOVING. The civilian had been identified with the T.V.A. for a number of years. It is my understanding he occupied a responsible position there.

Mr. FULTON. With the contractor or with the Government?

Mr. LOVING. With the Tennessee Valley Authority. Mr. O'Brien initially was called to Washington to perform a function in the purchasing department. Prior to his arrival I had experienced some trouble in getting the men I particularly wanted as my assistants, and when I saw Mr. O'Brien was available I asked to have him assigned to me as an assistant.

Mr. FULTON. And those men worked, then, with you as your assistants until you had a committee?

Mr. LOVING. That is correct, sir.

Mr. FULTON. And how big was the committee in point of numbers?

Mr. LOVING. The committee as a committee was appointed the latter part of December. It consisted of myself as chairman, Mr. R. H. Tatlow, who is now a member of the Construction Advisory Committee, and Maj. C. M. Hadley; he is an attorney from the Judge Advocate General's Department.

Mr. FULTON. And by that time, though, most of these contracts had been let, had they not?

Mr. LOVING. Very substantial number.

Mr. FULTON. And did you in each case talk with representatives of all three of the companies which were named?

Mr. LOVING. We did not, sir.

Mr. FULTON. Did you follow that practice except for minor variations?

Mr. LOVING. The practice has been pretty general. To review the three named recommended by the other committee and to reach a conclusion from a review of the record, and from such other data as we assembled through personal telephone calls or conferences with people who knew the particular firms. We generally arrived at a conclusion that one firm appeared to be best qualified and we did not call in other than the one firm.

Mr. FULTON. And at the time you called in the one firm you had already had in your own minds tentatively selected?

Mr. LOVING. We did not select, sir. We reviewed the data and made recommendation to the chief of the division. We simply acted in an advisory capacity.

Mr. FULTON. But the Chief of the Division, due to the pressure of many other things, would naturally place great reliance on your recommendations, is that it?

Mr. LOVING. Possibly true.

Acting Chairman HATCH. Did you ever go outside those recommendations?

General SOMERVELL. Yes; I disapproved one of them.

Mr. FULTON. Do you know of any other instance, Mr. Loving?

Mr. LOVING. Where the Chief failed to accept our recommendation? I don't recall another one offhand. I remember one of the early cases, after General Somervell came in, there was a project up for consideration. We had reviewed their records and in our mind we reached a conclusion that the firm appeared best qualified and the General didn't agree.

Mr. FULTON. Did the General take one of the other two?

Mr. LOVING. Yes, sir.

Mr. FULTON. So that in no instance has the committee asked for a second slate of names?

Mr. LOVING. Yes, sir; there have been cases where a second slate was asked for. One instance was on the Fort Eustis project. There was a firm recommended who had formed an alliance or entered into a joint venture arrangement with a utility contract. They were reviewed and the Chief approved of negotiations with the firm. However, during the negotiations the utility contractor refused to go along as a joint venture. His contention was that his part of the work constituted a somewhat minor portion of the work, and since as joint venturer he would have been wholly liable for the prosecution of the work he refused to go along, in which case we submitted the facts to the Construction Advisory Committee and they made additional recommendations. We had not in any case gone outside of the three names recommended by the committee.

Mr. FULTON. And was the committee's usual practice to accept the name which was recommended as the first choice of the Advisory Committee?

Mr. LOVING. The three names submitted prior to the latter part of December were regarded by us as being equally responsible. By that, we had not of necessity at that time picked the No. 1 name on the list.

Mr. FULTON. Although I understood that the Committee very definitely indicated in selecting the three names that the No. 1 name was its preference and its choice.

Mr. LOVING. We were instructed, sir, by General Hartman to regard them all as being potentially qualified to handle the job.

Mr. FULTON. Were you instructed to regard them all as being equal?

Mr. LOVING. We were instructed to regard them all as being potentially qualified and to recommend the one firm that appeared in our judgment to be best qualified.

General SOMERVELL. I would like to supplement that by saying that shortly after I took over I found out that there was a custom in the Board of considering the first one on the list as the one they regarded as the best, and I directed the Contract Committee to select the first one unless they had reasons to the contrary.

Mr. FULTON. And has there been any analysis to indicate how many contracts there were, how many were the first choice and how many were the second or third choices?

General SOMERVELL. I don't think we made any analysis. I think about 98 percent of them.

Mr. FULTON. Were the first choice?

General SOMERVELL. Yes.

Mr. FULTON. So in effect the ones that have been selected by the original committee actually get the contract in most instances, nearly all instances?

General SOMERVELL. That is right.

Mr. FULTON. Mr. Loving, then, I take it that the first time you see the contractor, and the only contractor you see, you are talking with the man whom you expect to have take the contract because you have already made your analysis and your selection.

Mr. LOVING. That does not necessarily mean, Mr. Fulton, that we would conclude negotiations with him unless the information developed during the negotiations proved that everybody had initially made a wise choice.

Mr. FULTON. I understand, but I mean the first time you are talking with the man you are talking with a man whom you have selected as the probable contractor.

Mr. LOVING. That is correct.

Mr. FULTON. And now would you tell us, General, using a hypothetical example, how those conversations would be opened and what would be said by you and also by what you might term the average contractor?

Mr. LOVING. In no instance did we at the beginning of the negotiation give the contractor any idea that he definitely was to secure the contract. We generally opened our discussions with him by stating that he with others had been recommended for consideration for the selection of a contractor for the particular project.

Mr. FULTON. Of course, you know if you were in the habit of calling in only the one who is to get the contract, you probably wouldn't have to tell him what he naturally would already know.

Mr. LOVING. I doubt if that has been generally known until this moment.

Mr. FULTON. I think perhaps, General Somervell, we don't have to change our entire system now as a result of this.

Aren't you rather underestimating the ability of contractors when you think they wouldn't know that the only people who are being called in are those who are being given the contracts?

General Somervell. They had people out in the hall watching to see who was going in, no doubt about that.

Mr. FULTON. I suspect they knew it then, before.

General SOMERVELL. They guessed, but they never knew. Mr. Loving has a soundproof room.

Mr. FULTON. You told him, then, he was one of several being considered?

Mr. LOVING. That is correct.

Mr. FULTON. And did you tell him that others would be called in?

Mr. LOVING. I did not, sir.

Mr. FULTON. And would you tell him then generally what the project was to be?

Mr. LOVING. Yes, sir.

Mr. FULTON. And, for example, would you then know what the project was to be with any degree of specificness?

Mr. LOVING. Yes; we did not call him in for negotiations even though he had been approved by everybody concerned prior to that time until after we had the best available information as to the description of the work to be done and an estimated cost.

Mr. FULTON. By the best available information, for example, with respect to a camp, do you mean that you had the general plans and information on that camp?

Mr. LOVING. No, sir; there were no general plans available.

Mr. FULTON. So that the best information available consisted of the fact that there was to be a camp with roughly a certain number of buildings to take care of a certain number of people?

Mr. LOVING. No, sir; very specific information as to the number of buildings to be constructed. We had the description and estimate prepared in the engineering branch of the division which described the purpose of the project; that is, it was to constitute a camp for the housing of this, that or the other troops up to a certain number, and

then it described in detail the number of barracks, number of mess halls and day rooms and other structures, and in many cases rather complete information as to utilities to be constructed. In many cases the information was to the effect that the necessary utilities, grading, water sewers, water, lights, and so forth, were to be constructed at an estimated cost of a definite amount.

Mr. FULTON. Those are the estimates which we have since found were so completely erroneous, are they not?

Mr. LOVING. That is correct.

Mr. FULTON. And when you say they were estimates, they were estimates that you would have certain types of utilities rather than that you would encounter certain specific problems in utilities.

Mr. LOVING. That is correct, sir.

Mr. FULTON. For example, with respect to Camp Edwards, do you have building that railroad at the time—was that told to you that the railroad would have to be built with the cut that was shown us?

Mr. LOVING. I doubt if the information was available, Mr. Fulton.

Mr. FULTON. And similarly with respect to Fort Meade, did you know there would be a 25-foot deep cut for a sewer between a couple of hills on a divide?

Mr. LOVING. I doubt that that information was available.

Mr. FULTON. In general, then, you knew the type of building but not the problems that would be met on the individual location.

Mr. LOVING. That is correct.

Mr. FULTON. And the estimates that you had were the estimates of a total cost and total number of buildings and total utilities.

Mr. LOVING. In some instances the utilities were broken down as to amounts for different classes of work—that is, water, so many thousand dollars; sewers, so many thousand dollars; grading, paving, and so forth. No quantities, however, were given in many instances.

Mr. FULTON. And all other information would have to be obtained by the contractor after the contract had been negotiated, I take it.

Mr. LOVING. You mean information as to——

Mr. FULTON (interposing). As to detail or as to how it was to be done, or the particular problems.

Mr. LOVING. That is correct, sir.

Mr. FULTON. In fact, would you have a period of time during which he would go and make a personal inspection of the camp site before he would accept or before he would indicate his willingness to take the fee you had in mind?

Mr. LOVING. That time was not available. Our instructions were rather definite, that is to the effect that it was desired to build this camp to house a certain number of men within a specified time. We knew that certain information as to standard specifications and standard plans was available. Likewise, we knew that very little specific information as to the actual extent of utilities to be constructed or the conditions under which the work would be undertaken, that is, whether rock would be encountered, or quicksand and water, or good clay. That information was not available, and since time appeared to be such a factor we made every plan and attempt possible to have the contractor start work coincident with the completion of the surveys and preparation of the necessary plans by the architect-engineer.

Mr. FULTON. In general, would you have just the one conference with the contractor?

Mr. LOVING. No, sir; our negotiations as a rule extended over 2 or 3 days. We would call him in for conference as soon as he reached Washington. We would give him a copy of the contract, a copy of the description and estimate, a copy of the equipment rental schedule when it was available, and a copy of all general information available pertaining to the particular site.

Mr. FULTON. Which I take it was not very extensive.

Mr. LOVING. Not complete, sir.

Mr. FULTON. And you said "when available." Didn't they have available copies of a rental schedule?

Mr. LOVING. No, sir, not in the beginning.

Mr. FULTON. When did that become available?

Mr. LOVING. The equipment rental schedule adopted by the War Department was made available the latter part of August or the first part of September.

Mr. FULTON. And was that the identical schedule that the Associated General Contractors had prepared, or was it something which was similar to the difference?

Mr. LOVING. It was one, sir, predicated on the information contained in the schedule of the Associated General Contractors.

Mr. FULTON. With the rentals the same, lower, or higher?

Mr. LOVING. It was intended taking into consideration the fact that our construction contract provided that the cost of repairs would be made at the expense of the Government. They were not identical in that.

Mr. FULTON. You have to take that factor out of the price which the general contractors had in their schedule?

Mr. LOVING. That is correct, sir. The same cost or replacement value as was used in the A. G. O. schedule was used in the War Department schedule. The same average months' use was used. Therefore the depreciation element is identical. The A. G. C. schedule, however, includes an item of 15 percent to cover repairs and overhaul.

Mr. FULTON. Storage and other such things?

Mr. LOVING. No; 12 percent in there to cover insurance, storage, and taxes.

Mr. FULTON. Did you leave that in?

Mr. LOVING. Our contract provided, as I interpreted it, an allowance of 1 percent a month on the present value of the piece of equipment. In other words, the schedule we prepared provided for two things—an allowance for depreciation and an allowance to cover interest, taxes, and storage. It is contemplated that when the equipment reached the job that the construction quartermaster and the contractor agree on the present value, which would be set up in the schedule to the depreciation item, based on average months' use estimated life, would be added this 1 percent a month based on the present value.

Mr. FULTON. And with those changes in general you accepted the schedule of the General Contractors' Association as being accurate?

Mr. LOVING. That is correct, sir.

Mr. FULTON. Of course, that was because it purported to reflect or did reflect the experience which the contractors have had over a period of years?

Mr. LOVING. That is right, sir.

Mr. FULTON. It would therefore seem to be a basis at least for a guide?

Mr. LOVING. (Nodding "Yes.")

Mr. FULTON. When these contractors had left the office with a copy of the contract, and later, if they had it, with the schedule, and then later came back to you, what would be the tenor of their discussions with you?

Mr. LOVING. Well, during our initial meeting we gave them a questionnaire which we asked them to fill out before they came back for the second conference. That questionnaire asked for information regarding present work on hand, equipment available, funds available, organization available, particular persons available for work on this particular project, and some 35 or 40 questions of that character.

Mr. FULTON. And would they file written answers to those questions?

Mr. LOVING. Yes, sir.

Mr. FULTON. Those would be extended answers or Yes or No answers?

Mr. LOVING. In a good many cases they were somewhat brief and in other cases very complete.

Mr. FULTON. With respect to equipment, did they specify the rentals they wanted or their willingness to take the schedule?

Mr. LOVING. In the beginning, since there was no War Department schedule prepared, our negotiations were concluded on a basis that the A. G. C. schedule would be that base from which an agreement would be reached.

Mr. FULTON. You mean it would be used as a guide but that the agreement would actually have to be argued out between the Quartermaster and the contractor?

Mr. LOVING. That is right.

Mr. FULTON. In other words, the contractor did not agree to furnish equipment at these prices, or rentals that you had determined in your schedule?

Mr. LOVING. He did, sir, insofar as the schedule finally prepared by the War Department.

Mr. FULTON. But under the contract did he agree to furnish them under those schedules?

Mr. LOVING. Yes, sir.

Mr. FULTON. That is under a schedule which ultimately would be worked out between him and the contracting officer on the basis of bids and all that he could get from others to furnish equipment?

Mr. LOVING. On the first few jobs we asked them if they considered the A. G. C. schedule fair, and if they would accept rental at that schedule.

Mr. FULTON. And naturally they said they wanted more, isn't that correct?

Mr. LOVING. I would have to check my records, but I think the negotiations in practically all cases were concluded whereby he agreed to accept rental at that schedule.

Mr. FULTON. How did he accept rental at that schedule in fact?

Mr. LOVING. I can't answer that.

Mr. FULTON. I mean, isn't it true that they have received rentals higher than that schedule on equipment which they themselves furnished for the contract?

Mr. LOVING. You mean contractor-owned equipment?

Mr. FULTON. Contractor-owned equipment.

Mr. LOVING. I am not aware, sir, that they have received any rental in excess of the A. G. C. schedule.

Mr. FULTON. Are you, General Somervell?

General SOMERVELL. Yes, I know of some equipment that has been rented in excess of the A. G. C. schedule. I don't know of any equipment rented by the contractor at rates in excess of the A. G. C. schedule.

Mr. FULTON. You mean rented to the Government by the contractor?

General SOMERVELL. Yes, sir.

Mr. FULTON. Have you checked on that?

General SOMERVELL. No. I read your questionnaire and saw you were checking on it and thought I would let it ride.

Mr. FULTON. Well, I can only make a test check, of course.

General SOMERVELL. Well, you have asked every one of them; that is the best I can do.

Mr. FULTON. My purpose was to find out.

General SOMERVELL. I thought I would let you do it for me; it is a good thing to check on. I was amazed at the question because it never occurred to me that any one of our C. Q. M.'s would be lax enough to let that happen. Now it probably has happened somewhere; I don't know.

Mr. FULTON. In the contract as originally printed, in the form as originally printed, you had the schedule annexed as part of the contract and you have since examined it and provided it should be by negotiation.

General SOMERVELL. That is right.

Mr. FULTON. And therefore I thought there ought to be some check as to whether there is a difference in the two.

General SOMERVELL. Yes.

Senator BALL. Did the contract cover only the equipment rented by the contractor himself, not what he got outside?

General SOMERVELL. Yes. And then the equipment rented on our account by the contractor for the work has to receive the approval of the C. Q. M. on the job, and he in turn uses this same schedule as a guide as to whether or not he will approve the rentals which the contractor proposes.

Mr. FULTON. The trouble I had with that in my own mind, General Somervell, was this, that if I were a quartermaster on the job, with the duty of seeing to it that the job had to be done expediently, I might allow the rentals to be a little bit higher, rather than to incur the risk of being blamed for the contractor's inability to finish the job.

General SOMERVELL. Exactly, that is what has happened.

Mr. FULTON. There is too much pressure like that on an individual quartermaster?

General SOMERVELL. That is exactly what has happened and some of them have handled it beautifully and some of them handled it well, and some of them not so well; that is what you expect. Most of them have handled it very well.

Mr. FULTON. And where you have a courageous quartermaster he probably gets in a lot of trouble with his contractors and perhaps even with Washington?

General SOMERVELL. It is courageous both ways; sometimes it is courageous to let them pay a big price. Remember, we have a big staff of auditors, Mr. Fulton, and these parachute jumpers drop in on these jobs at any time. They don't know when they are going to drop, and they are pretty tough, pretty tough, and they report this thing in, direct.

Nobody has any control over them and they report that this fellow is paying rates in excess of what he ought to and then we get pretty tough ourselves and in addition to our auditors we have an inspector general. He has two or three bloodhounds that he keeps out on the job all the time and the O. P. M. has got some that it keeps out on the job, and you gentlemen are out, and the House is out, and if we get away with anything I will be very much surprised.

Mr. FULTON. With respect to that same argument, it occurred to me that it would also apply to a number of men. Now the contractor might be able to do the job if efficient with 5,000 men and yet an inefficient contractor could do the job and do it just as fast with 8,000 men?

General SOMERVELL. That is exactly what has happened. There is a camp reported to me about a month ago or 6 weeks ago, that the contractor had overmanned the job; that they had 8 laborers carrying one 2 by 4, and that the thing was way over manned. All right; the next move was to send for the contractor and talk to him, and he claimed the job was ahead of schedule and the best-run job in the United States, bar none. Those were his very words. We told him we didn't think it was the best-run job and so we descended on him and arbitrarily made him fire 10 percent of his people, which were 2,000 people, just like that. And the job ran much better.

Now, those are things that are just in the cloth, that is all. You can't get away from it. Those things are under constant supervision and in this particular case it looked as if there was a reason for his having too many men on the job that didn't have anything to do with the work. We tried to sift that out and I think there was a reason, and then we reduced him again, and he still did a better job, so the job is very well run now.

Now, what we try to do is to prevent things like that from happening in the first place, but we don't always do it.

Mr. FULTON. Well, if you succeed in keeping 2,000 unnecessary people from being on the pay roll on a camp you have really done a major service.

General SOMERVELL. A major operation; that is right. We have taken off more than that.

Mr. FULTON. The difficulty with auditors would be that I don't know how an auditor could tell that unless you had controls from labor and carpenter hours which you could apply when you found they were running in excess so that you could investigate it.

General SOMERVELL. I forget to tell you we have zones who inspect these places also, and my own office has a number of other people. I had a check made subject to correction, 10 or 20, but 683 inspections made of these camps by people from my office. Now those aren't auditors' inspections entirely; they are operating inspections as well.

Mr. FULTON. I thought you would want engineers and construction men to make the inspection.

General SOMERVELL. That is the major part of that number and when they go on one of these jobs you can tell if you are an experienced construction man, after you have walked around 3 or 4 hours, whether the job is over-manned or not, and when it looks like it why you get busy right away with the records and find out whether or not they have too many men. You go and count the number of people on a building, and see whether he has too many men on the roof. I have counted twice as many men on the roof as there ought to be, and then again I have found there weren't enough in some places. We found excellent supervision some places; in others it hasn't been sufficient.

But by and large when these things run the way they have had to be run, in other words where speed is the prime essential, and speed is the prime essential, remember, if we have a war it is going to cost us at least \$50,000,000 a day; that is the least it is going to cost, and if we have saved 7 days by spending this \$350,000,000 we have come out even, not to mention the people that haven't been killed.

Mr. FULTON. Then I take it we do have an inspection for that. Now what happens to a contractor when you find he has 2,000 people unnecessarily on his pay rolls? What penalty does he have, if any?

General SOMERVELL. He is not considered for any more work. Now we have just about exhausted—there are a few excellent contractors that we haven't had, but with the jobs coming up now we are going to have to have a good many repeat contracts. Repeat contracts are pretty good things from two or three points of view. First of all, we get a man who has had the experience in doing this type of work. We have an investment in this man. We have paid him \$200,000 to learn how to do this work at our expense. Now if that is the case, the question arises as to whether if this man has shown he does know how to do the job, it isn't to our advantage to hire him again, so there are a good many of these repeat contracts coming up.

Now in the case of this man that I just talked about, he won't get one. In other words, this thing cost him \$200,000. That is the penalty.

Mr. FULTON. How about the question of other Government contracts? Do you take steps to see to it that other agencies in the Government do not hire him?

General SOMERVELL. We advise from our experience with them; it is up to them to do what they please.

Mr. FULTON. But there is definitely an interchange of information?

General SOMERVELL. Yes, sir.

Mr. FULTON. So one who is not good on one job will not get it from another source in the Government?

General SOMERVELL. What happens is this. General Spalding's board, before it recommends a repeat contract, invariably asks for the performance on the past contract.

Mr. FULTON. Yes; but what I meant was an agency outside the Quartermaster General's staff.

General SOMERVELL. Engineers have to go to the same board.

Mr. FULTON. How about the Navy?

General SOMERVELL. The Navy, no.

Mr. FULTON. So you might get a contract with the Navy?

General SOMERVELL. He might get a contract with the Navy, although Admiral Moreell and I exchange information on our contracts, but not definitely with this idea in mind, sir.

Mr. FULTON. Mr. Loving, the contractor has come back after having had a chance to read over, and I presume show his lawyer, this form of contract that you have proposed. Now what would be the nature of the discussions at the time he gets back, other than what you have told us about equipment?

Mr. LOVING. We would discuss and attempt to amplify the points included in the questionnaire, where it was incomplete; then as a result of discussion with him, question him; we would attempt to develop additional information regarding the type of work he had been handling, the maximum amount of work he had under contract at any one time, extent of work he has in the contract at the present time; determine the extent of his organization available, funds available, his practice with respect to subcontract work; that is as specific information as to whether he acted as a broker or was a contractor qualified and equipped to handle the several phases of construction involved; and ask information regarding his labor practice; his policies with respect to the payment of overtime; work on Saturdays, Sundays, and holidays, and attempt to develop complete information regarding his organization's fitness to handle the particular job, and the manner in which he normally carried on his construction operations.

Mr. FULTON. And after developing that, would you then go to the question of giving him the contract?

Mr. LOVING. Yes, sir.

Mr. FULTON. If you were satisfied you would tell him that you were satisfied to negotiate a contract with him?

Mr. LOVING. Yes, sir, we would tell him that; we would offer him a fixed fee and conclude negotiations with him, subject, however, to three provisions; that is, to the concurrence of the Chief of the Construction Division, to the concurrence of the O. P. M., the former National Defense Commission, and to the Under Secretary of War.

Mr. FULTON. And when you go to the question of the fee, who first mentions the fee, or rather the amount of the fee, you or the contractor?

Mr. LOVING. We do, sir.

Mr. FULTON. And do you do that without first asking the contractor what fee or amount of fee he has in mind?

Mr. LOVING. We calculated a fee which was based on several factors. First, the complexity or simplicity of the project; the length of time required for construction; and the type of work involved. I may say that shortly after I came here General Hartman gave me a confidential list of the projects to be constructed. That included the camps and cantonments and the manufacturing projects in contemplation. It was noted that the fee schedule which was to be used was described as a minimum schedule. Immediately the question arose as to what we would do in respect to the payment of a higher fee.

After a study of the projects it was concluded that the work to be done divided itself up into three classifications. The first we regarded as simple construction, and in that classification we put the camps and cantonments and the general hospitals of temporary construction.

The second classification we described as being semicomplex in nature, small arms, ammunition plants, storage depots and projects of that character.

In the third or maximum classification, which we considered most complex, we put the TNT plants, the powder plants, and the rather complicated chemical processing plants.

Mr. FULTON. So you had three charts really, instead of one?

Mr. LOVING. In substance; yes, sir.

Mr. FULTON. And this one which we have in this No. 17 construction book would only be one of those three?

Mr. LOVING. That, sir, is what was considered prior to February 7 this year as the minimum schedule.

Mr. FULTON. But would that be the minimum schedule for the No. 1 group only and not for the No. 2 or No. 3?

Mr. LOVING. That is correct; that schedule was used for all projects in the same classification.

Mr. FULTON. But you do have two other charts?

Mr. LOVING. They are not necessarily charts; it is arbitrarily decided that on the semicomplex projects a fixed fee of 10 percent in excess of the minimum fee would be paid; that on the most complex that a fee 20 percent greater than the minimum would be paid.

Mr. FULTON. So that there is the one chart with the provision that you add to it 10 percent or 20 percent for the other two classifications?

Mr. LOVING. That is correct, sir. Now, that was considered the basic fee.

Mr. FULTON. Now, why would the Government have to have a minimum fee? I should think you could trust the contractors for that. Could we not ask them to fix their fee, rather than to determine that under no circumstances should they be offered less than this minimum?

Mr. LOVING. We had in almost every case considerable discussion as to why the fee wasn't higher.

Mr. FULTON. Naturally, I would assume that no matter what fee you had mentioned the contractor would as a matter of A, B, C bargaining mention a higher fee.

General SOMERVELL. They all haven't been like that.

Mr. FULTON. That is the usual business approach.

General SOMERVELL. There have been very few gluttons in this.

Mr. FULTON. A man wouldn't have to be a glutton to be a businessman; he would just be businesslike.

General SOMERVELL. They are satisfied pretty well that this is a national effort. Of course there are plenty of patriots with a purpose around town, but these people have been pretty decent all the way through.

Mr. FULTON. Of course you see for a contractor you are putting him into a situation where he is taking a contract blind in effect, and naturally he isn't going to take any fee even under consideration unless he is a real patriot, unless it is way in excess of what he would ordinarily expect to make, without going into a blind venture.

General SOMERVELL. He assumes no risk; that is the difference.

Mr. FULTON. And he is of course assuming no risk?

General SOMERVELL. That is the big thing that a contractor gets paid for, what he gets a profit for, is assuming a risk.

Mr. FULTON. Well, in this case he is getting paid.

General SOMERVELL. For this management ability.

Mr. FULTON. Yes.

General SOMERVELL. But I mean in the lump-sum contract he gets paid for assuming that risk.

Mr. FULTON. But in any event we did think it necessary to set a minimum fee below which we do not commence our negotiations?

General SOMERVELL. Yes, sir.

Mr. FULTON. And at least many contractors in mentioning a higher fee, or saying they weren't too well satisfied with the minimum, would be simply following the ordinary business principle, asking for more in order to reach a middle-course decision which both sides would be satisfied with.

Mr. LOVING. Their primary comments were in making a comparison with fees paid on commercial ventures.

Mr. FULTON. Now, how could they, because there aren't any commercial ventures of that size and magnitude with that period of time, and under these conditions?

Mr. LOVING. Well, many of the firms that we have employed have handled projects just as big and larger.

Mr. FULTON. Not with these conditions. At least I haven't found any.

Mr. LOVING. That is probably true. I don't suppose since the last war we have had a construction program calling for as thorough density of construction as we have in this program. It has been an emergency type of work, calling for the highest degree of production possible.

Mr. FULTON. Wouldn't you say it would be rather an improper thing to compare two things that aren't comparable, rather than to proceed on the basis of how much real profit was needed to be an incentive for a contractor to do the work?

Mr. LOVING. My observation has been that the contractors did not look upon this as being a commercial venture. We have in several instances had to talk to them rather plainly, that we thought they were making their contribution to national defense, toward preserving that market for free enterprise as we have known it in the past.

Mr. FULTON. Yes; they are making a distinct contribution, but also at a distinct price, and the point I was addressing myself to was when you are determining what the fee is if you haven't got any comparable yardstick, why attempt to compare it with one that isn't really comparable, instead of simply going to the profit motive and comparing it with the amount of profit the man could hope to make anywhere else? Do you understand the point I am raising there? Since you do not have commercial ventures that are comparable, it isn't very proper, in my opinion, to compare the fixed fee that they make on commercial ventures of a known comparable character and say that that should be the minimum fee. It seems to be a yardstick which wouldn't apply, and therefore wouldn't you go to their profits and ask them how much they had been making in their own businesses, and give them something better than that as a sufficient incentive for them to be patriotic and proceed with the construction work?

Mr. LOVING. We looked on this schedule on the negotiating committee as being a schedule that had been studied and adopted by those familiar with the problems as constituting a fair compensation for the management service to be rendered. This morning General Somervell touched upon the fact that the Government in hiring its employees has adopted a very definite scale of payment for the performance of a

definite service, and it is my understanding that when they employ a man for P-5 or P-6 grades they say, "This is the salary we are going to pay you," and it was assumed by us that this schedule was adopted as representing a fair measure of compensation for the degree of management service to be rendered by the contractor.

Mr. FULTON. Of course you didn't prepare the schedule so if there is anything wrong with it, it has nothing to do with you?

Mr. LOVING. That is correct, sir. The schedule was handed to me by General Hartman shortly after I arrived here July 15, 1940. My consideration was given solely to the question of what we would do in the way of variation from the minimum schedule.

Mr. FULTON. Of course, it does seem rather unusual that the Government would provide a minimum schedule for contractors instead of a maximum, and you have since made it into a maximum, I understand, General Somervell, and then the amount of the fee has by reason of the estimates being so far wrong actually been less than anyone expected. But in negotiating you did not ask the contractor what his profits had been over the period of, say, 4 or 5 years before he had been considered for the contract.

Mr. LOVING. We did not, sir.

Mr. FULTON. And you did not ask him whether he would take the contract on the basis of a fee that would approximate his profit or would exceed it only by the amount of the extra work he had undertaken?

Mr. LOVING. We did not. We, as I stated, had some instances when the contractor thought the deal was low.

Mr. FULTON. Did you have any which he thought were high?

Mr. LOVING. Some of them were satisfied thoroughly. As a matter of fact some of them said they would do it for a dollar.

Mr. FULTON. Did you take the offer?

Mr. LOVING. No, sir.

Mr. FULTON. Was that an offer?

Mr. LOVING. No, sir.

General SOMERVELL. We did take it in two cases, on the Baytown job; the fee on that is a dollar and on the Chrysler job it is \$2, high price. It might be of interest to the committee if I give you a few figures which I have here right along the line that you have been talking, Mr. Fulton. We talked about Blanding. Now, if we had applied the World War schedule fees to Camp Edwards we would have paid them \$250,000 instead of \$233,000; Camp Grant, we would have paid them \$235,000 instead of \$141,000; Indiantown Gap, we would have paid them \$250,000 instead of \$182,000; Fort Knox, we would have paid them \$250,000 instead of \$164,000; and so on.

Mr. FULTON. Of course, General Somervell, you aren't suggesting that the World War price basis was one that would be considered very fair to the Government?

General SOMERVELL. The reason I give these is that there was a ceiling during the World War on the amount that was permitted to be paid on any contracts of \$250,000, and in all these cases these big camps we are paying as a rule less than that amount.

Mr. FULTON. Although I understood that at Fort Meade for example there would be a claim for \$275,000.

General SOMERVELL. Claims; yes.

Mr. FULTON. You mean there will be no allowance of any extra fees?

General SOMERVELL. There will be no allowance for anything except for extra work. That is the whole basis of the law. The law is that we don't want to have the thing the way it was in the World War. In other words, we want to have a fixed fee and not a cost-plus basis.

Mr. FULTON. That, of course, is a major improvement, but there still may be too high a fee if we are paying relatively much more than they earn anywhere else.

General SOMERVELL. Oh, yes. I am perfectly willing to agree that we might pay these people less and as Mr. Loving just told you, some of them offered to do it for a dollar, but I think that on the whole these fees that are recommended aren't far out of line.

Mr. FULTON. Well, the dollar fees usually would not be the right way to approach it because if a man doesn't want a fair price for what he does he usually isn't worth hiring.

General SOMERVELL. I am sure a great many of the gentlemen around Washington wouldn't agree with that; there are quite a number of dollar-a-year men.

Mr. FULTON. I mean generally speaking, you have to fear cheap labor because a man should get what he earns.

General SOMERVELL. Well, there are too many men for whom I have the highest regard who are just getting a dollar for me to agree with that.

Mr. FULTON. I am talking of contracting work.

General SOMERVELL. No difference between a contractor and a doctor or anybody else.

Mr. FULTON. Would you tell the committee what your own particular experience has been and associations before you came here, Mr. Loving?

Mr. LOVING. Upon graduating from the Georgia School of Technology in Atlanta, my first employment was with the J. D. McCreary Co., a firm of municipal engineers and contractors of Atlanta. That was a Georgia corporation. I was with the firm from 1911 until the latter part of 1916. During that period I did almost everything, from making preliminary surveys in the field to design of municipal water, sewers, lights, and paving. From that to acting as superintendent of construction on that type of project, to that of acting as district manager of the company's branch office at Charlotte, N. C.

While at that point I had general supervision over the company's activities in the engineering and construction field in North Carolina and Virginia. The latter part of 1916 I resigned and formed a partnership with the engineering firm of Anderson & Christen. We likewise specialized in the design and supervision from an engineering standpoint of municipal improvements.

When war was declared in 1917 I came to Washington and endeavored to secure a commission in the Engineering Corps. It was not available. I then went to the second officers' training camp. I was commissioned captain in the Coast Artillery Corps. They called for volunteers to go to France; I went. I was sent to school again, to the Heavy Artillery School; thought I was going over there to see some action. When I finished school they said, "We want you to stay here and act as instructor."

I spent the time from the time of my arrival in France in 1917 until the armistice at the school. I was chief instructor in orientation.

After the armistice I was assigned to the War Damage Board which was formed to compile information of war damage in invaded countries for information of the American delegation to the Peace Conference.

That group initially consisted of about 450 engineer officers. I was 1 of 5 retained to compile the information of damage done by the Germans in invaded countries. After the signing of the peace treaty I was assigned to the Army Education Commission in France and did some work in organizing educational campaigns put on at the various camps in France.

Upon my return to the United States in August 1919 I had a desire to go back to Paris, and I formed a connection with the firm of Frazar & Co., exporters and importers, of New York City. I was taken in with the understanding that I would be transferred back to Paris as their office manager. During the depression in 1921 I resigned that connection and was employed by the Royal Typewriter Co., which company is owned by one of my cousins. I was taken on and given training in Spanish with the idea that I would be transferred to South America as the company's representative.

I decided after a while I didn't want to make that trip, so in 1921 I resumed my former connection with the J. D. McCreary Co. of Atlanta. I was appointed district manager again in charge of the branch office in Charlotte, having jurisdiction and supervision over the company's activities in west Tennessee, South Carolina, Virginia, and North Carolina. I functioned in that capacity until 1925, at which time I was called to Atlanta and appointed vice president of the company. As vice president I had general charge of the company's activities throughout the Southeast.

In 1933 I resigned and formed an engineering partnership with Mr. Robert L. Tutt, an engineer of Birmingham, Ala., who had practiced in Alabama and Mississippi for quite a number of years. That partnership functioned actively from 1933 till 1937, during which period we were retained as designing and supervising engineers on some fifty-odd projects in Tennessee, Mississippi, and Alabama.

In July '37 I was appointed as executive secretary of the Carolinas branch of the Associated General Contractors of America, which branch has jurisdiction over the States of North and South Carolina. In 1938 for a short period I was appointed contractor-consultant to the Federal Housing Administration. That employment was for the specific purpose of holding a series of meetings with the contractors in North Carolina, Virginia, and South Carolina, to acquaint them with the possibilities of financing multiple housing units under the Federal Housing Act.

I continued as executive secretary of the Contractors' Association until July 15, on which date I was called to Washington.

Acting Chairman HATCH. That brings you down to the present time, doesn't it?

Do you have anything more, Mr. Loving, you want to tell us?

Mr. LOVING. Anything, sir, I can, that you would like to know.

Acting Chairman HATCH. We have no further questions. If there is nothing more the committee will stand at recess until 10:30 Monday morning.

(Whereupon, at 4:35 p. m., the committee recessed until 10:30 a. m. Monday, April 28.)

APPENDIX

EXHIBIT No. 1 appears in the text on p. 8, *supra*

EXHIBIT No. 2, introduced on p. 24, is on file with the committee

EXHIBIT No. 3

TABLE I.—*Summarizing vessels initially appropriated for, by fiscal years*

Year	Navy yard built	Private yard built	Number of vessels	Year	Navy yard built	Private yard built	Number of vessels
1922.....	0	0	0	1933.....	3	1	4
1923.....	0	0	0	1934 (including N. I. R. A.).....	16	21	37
1924.....	0	0	0	1935 (including I. N. E. C.).....			
1925.....	1	0	1	1936.....	13	11	24
1926.....	3	7	10	1937.....	11	13	24
1927.....	2	4	6	1937.....	11	9	20
1928.....	0	0	0	1938.....	6	8	14
1929.....	0	0	0	1939.....	17	57	74
1930.....	4	3	7	1940.....	45	12	57
1931.....	2	2	4	1941.....	45	341	386
1932.....	3	2	5				

EXHIBIT No. 4

TABLE 2.—*Authorized expansion tonnage since 1920*

	Column 1		Column 2	Column 3		Column 4	
	Original treaty al- lowances		Increases due to article 21 of London Treaty	Total authorized under Vinson Trammel Act (under-age ves- sels) H. R. 6604		Authorized in- creased by 20 per- cent Expansion Act, H. R. 9218, Pub. 528, 75th Cong.	
	Number of vessels	Tonnage		Number of vessels	Tonnage	Number of vessels	Tonnage
Battleships.....	15	525,000	-----	15	525,000	3	135,000
Aircraft carriers.....	6	135,000	-----	16	135,000	2	40,000
Cruisers, heavy.....	18	180,000	-----	18	180,000	0	-----
Cruisers, light.....	17	143,500	20,270	19	163,770	9	68,754
Destroyers.....	97	150,000	40,000	121	190,000	23	38,000
Submarines.....	37	52,700	15,598	47	68,298	9	13,658
Totals.....	190	1,186,200	75,868	226	1,262,068	46	295,412

¹ Present Law (Vinson-Trammell Act) limits total tonnages only in these categories.

TABLE 2.—Authorized expansion tonnage since 1920—Continued

	Column 5		Column 6			
	Total composition authorized by 20 percent expansion bill, H. R. 9218 (Under-age vessels)		11 percent Expansion Act, Pub. No. 629, H. R. 8026			
	No. of vessels	Tonnage	Increases		Total authorized	
			Number	Tonnage	Number	Tonnage
Battleships.....	18	660,000			18	660,000
Aircraft carriers.....	8	175,000	3	79,500	11	254,500
Cruisers, heavy.....	18	² 180,000			(³)	
Cruisers, light.....	28	² 232,524	5	66,500	49	479,024
Destroyers.....	144	228,000			³ 135	228,000
Submarines.....	56	81,956	14	21,000	³ 71	102,956
Totals.....	272	1,557,480	22	167,000	284	1,724,480

	Column 7		Column 8		Column 9
	70 percent expansion Act Pub. No. 757, H. R. 10100, July 13, 1940		Tonnage transfers under 70 percent act		Under-age combatant vessels authorized
	Increases tonnage	Total authorized tonnage	Added ships	tonnage	tonnage
Battleships.....	385,000	1,045,000		-43,975	1,001,025
Aircraft carriers.....	200,000	454,500		+400	454,900
Cruisers, heavy.....					
Cruisers, light.....	420,000	899,024		+3,701	902,725
Destroyers.....	250,000	478,000		+46,330	524,330
Submarines.....	70,000	172,956		-6,456	166,500
Totals.....	1,325,000	3,049,480		0	3,049,480

² H. R. 9218 combines cruiser tonnages authorizing total of 412,524.

³ Numbers of vessels have been changed due to changes in designed tonnage of new classes.

EXHIBIT No. 5

TABLE 3.—Vessels

Authorizing acts	Combatant		Auxiliary	
	Number	Tonnage	Number	Tonnage
Vinson-Trammell, May 27, 1934, Pub. 136.....	226	1,262,068		
Auxiliary bill, July 30, 1937.....			6	36,050 + or -
20 percent act, May 17, 1938.....	278	1,557,480		
Pub. 528, 75th Cong.....	(46)	(295,412)	26	133,600.
11 percent act, June 14, 1940.....	346	1,724,480		
Pub. 629, 76th Cong.....	(22)	(167,000)	(29)	75,000.
70 percent act, July 19, 1940.....	529	3,049,480		100,000 plus \$50,-
Pub. 757, 76th Cong.....	(245)	(1,325,000)	(23)	000,000 of patrol craft.

Speed-up bill, June 28, 1940, Pub. 671, 76th Cong.: Negotiated contracts, 40-hour week, time and one-half for overtime, etc.

EXHIBIT No. 6

TABLE 3.—*Aircraft*

Authorizing acts	Airplanes	Lighter-than-air aircraft
20-percent Act, May 17, 1938, Pub. 528, 75th Cong.	3,000-----	1 rigid 3,000,000 cubic feet.
11-percent Act, June 14, 1940, Pub. 629, 76th Cong.	4,500-----	Not to exceed 18 nonrigids.
Airbase bill, June 15, 1940, Pub. 625, 76th Cong.	10,000 (16,000 pilots)-----	Not to exceed 48 nonrigids.
70-percent act, July 19, 1940, Pub. 757, 76th Cong.	15,000 plus-----	

EXHIBIT No. 7

TABLE 4.—*Naval expenditures, 1915-40*

Fiscal year	Amount expended	Increase of Navy	Aircraft (includes air-ships)	Modernization
(1)	(2)	(3)	(4)	(5)
1915-----	144,956,199.41	39,363,324.69		
1916-----	147,598,136.82	37,191,228.44		
1917-----	231,671,137.47	49,337,963.66		
1918-----	1,169,447,554.83	208,954,205.74		
1919-----	1,721,098,608.94	263,936,761.44		
1920-----	838,485,576.99	202,139,790.59		
1921-----	963,449,978.63	202,744,852.87		
1922-----	485,583,028.12	128,862,991.97	998,462.24	
1923-----	308,943,019.95	46,681,919.62	4,073,523.76	
1924-----	316,716,719.31	41,696,913.44	7,300,187.20	
1925-----	323,940,534.15	34,021,549.83	5,295,957.41	212,832.91
1926-----	317,495,316.32	25,249,796.96	4,963,705.63	5,745,280.29
1927-----	320,553,753.98	27,430,330.87	6,037,444.10	10,203,283.40
1928-----	336,441,214.24	36,934,985.38	11,301,938.52	5,042,288.60
1929-----	366,443,933.40	46,759,720.51	15,769,724.54	9,564,567.07
1930-----	375,291,828.11	49,872,209.92	14,385,563.58	7,810,995.47
1931-----	357,506,219.10	37,928,742.82	13,157,747.01	7,005,862.37
1932-----	353,628,362.38	39,203,814.18	13,535,053.26	7,742,834.23
1933-----	342,176,417.52	48,251,178.78	13,123,811.62	12,349,210.16
1934 ¹ -----	303,639,404.62	66,730,837.74	4,281,505.57	5,565,767.71
1935 ¹ -----	440,604,669.56	132,312,739.43	10,347,261.74	2,680,864.05
1936 ¹ -----	518,625,222.14	182,679,054.75	14,227,165.00	899,702.13
1937 ¹ -----	539,030,790.85	181,522,074.47	18,315,769.00	243,346.81
1938 ¹ -----	587,945,491.91	191,085,298.80	27,256,163.73	
1939 ¹ -----	660,206,184.96	226,709,306.16	24,247,414.00	
1940 ¹ -----	885,769,793.59	326,454,878.87	24,011,998.04	2,364,515.43
Total-----	13,357,549,097.30	2,874,056,471.93	232,630,395.95	78,031,350.63

¹ Includes emergency funds transferred to the Navy for expenditure, but does not include emergency relief funds allotted to the Navy for obligation.

TABLE 1.—*Naval expenditures, 1915-40—Continued*

Fiscal year	Public works (direct)	Totals of columns 3, 4, 5, and 6	Maintenance equals columns 2-7
1	6	7	8
1915.....	\$3,824,742.41	\$43,188,067.10	\$101,768,132.31
1916.....	3,481,599.46	40,672,827.90	106,925,308.92
1917.....	4,168,804.54	53,506,768.20	178,164,369.27
1918.....	43,246,332.04	252,200,537.78	917,247,017.05
1919.....	69,000,995.11	332,937,756.55	1,388,160,852.39
1920.....	38,017,848.54	240,157,639.13	598,327,937.86
1921.....	16,402,476.20	219,147,329.07	744,302,649.56
1922.....	14,124,036.42	143,985,490.63	341,597,537.49
1923.....	9,092,933.68	59,848,377.06	249,094,642.89
1924.....	4,150,614.44	53,147,715.08	263,569,004.23
1925.....	3,816,774.09	43,347,114.24	280,593,419.91
1926.....	3,561,201.99	39,519,984.87	277,975,331.45
1927.....	2,617,252.61	46,288,310.98	274,265,443.00
1928.....	4,436,840.63	57,716,053.13	278,725,161.11
1929.....	8,584,307.47	80,678,319.59	285,765,613.81
1930.....	6,818,912.08	78,887,681.05	296,404,147.06
1931.....	12,830,323.76	71,522,675.96	286,283,543.14
1932.....	13,012,598.38	73,494,300.05	280,134,062.33
1933.....	11,214,276.28	84,938,476.84	257,237,940.68
1934 ¹	13,975,969.39	90,554,080.41	213,085,324.21
1935 ¹	13,947,176.28	159,288,041.50	281,316,628.06
1936 ¹	8,437,222.55	206,243,144.43	312,382,077.71
1937 ¹	8,609,029.61	208,690,219.89	330,340,570.96
1938 ¹	7,512,683.91	225,854,146.44	362,091,345.47
1939 ¹	34,383,582.95	285,340,303.11	374,865,881.85
1940 ¹	72,503,150.85	425,334,543.19	460,435,250.40
Total.....	431,771,685.67	3,616,489,904.18	9,741,059,193.12

¹ Includes emergency funds transferred to the Navy for expenditure, but does not include emergency relief funds allotted to the Navy for obligation.

EXHIBIT No. 8

TABLE 5

Ship construction

Due to the decline in the shipbuilding industry, the following firms were the only contractors for major naval units other than auxiliaries:

PRIVATE

Bath Iron Works Corporation, Bath, Maine.....	Destroyers.
Bethlehem Steel Co., shipbuilding division, Fore River, Mass., and Staten Island, N. Y.	Cruisers and destroyers.
Electric Boat Co., Groton, Conn.....	Submarines.
Federal Shipbuilding & Drydock Co., Kearney, N. J.	Destroyers.
New York Shipbuilding Corporation, Camden, N. J.	Cruisers and destroyers.
Newport News Shipbuilding and Drydock Co., Newport News, Va.	Aircraft carriers and cruisers.

PUBLIC YARDS

Portsmouth Navy Yard, Portsmouth, N. H.....	Submarines.
Boston Navy Yard.....	Destroyers.
Philadelphia Navy Yard.....	Battleships, cruisers, and destroyers.
New York Navy Yard.....	Do.
Norfolk Navy Yard.....	Cruisers and destroyers.
Mare Island Navy Yard, Mare Island, Calif. ¹	Submarines and destroyers.
Puget Sound Navy Yard ¹	Do.

¹ Mare Island and Puget Sound were acting primarily as repair yards, whereas the east coast yards were building yards.

Under the Vinson-Trammell Act every other ship was being constructed in the navy yards. Private shipbuilding in general had practically ceased during the depression except for such yards (six private shipyards) as were building naval vessels, and was just being resumed under the stimulus of the Maritime Commission program.

Shipbuilding

Firm	July 1, 1939	Contract cost	July 1, 1941	Contract cost
Newport News Shipbuilding & Drydock Co.....	4	\$89,590,000	13	\$470,516,000
New York Shipbuilding Corporation.....	5	95,658,555	22	574,131,700
Bethlehem Steel Co., shipbuilding division:				
Fore River plant.....	6	104,407,000	23	588,695,000
Staten Island plant.....	3	3,678,000	12	81,902,000
San Pedro plant.....			10	66,198,000
San Francisco plant.....			29	233,917,000
Bath Iron Works Corporation.....	8	37,796,300	25	166,498,200
Electric Boat Co.....	10	30,497,000	43	120,205,000
Federal Shipbuilding & Drydock Co.....	7	48,673,000	40	240,901,630
Cramp Shipbuilding Co.....			6	113,822,280
Manitowoc Shipbuilding Co.....			10	30,495,000
Seattle Tacoma Shipbuilding Co.....			30	179,388,690
Consolidated Steel Co., Orange, Tex., plant.....			12	87,780,912
Defoe Boat & Machine Works.....			4	6,310,400
General Engineering & Drydock Co.....			8	14,192,000
Ingalls Shipbuilding Corporation.....			4	50,000,000
Los Angeles Shipbuilding & Drydock Co.....			3	43,281,500
Moore Drydock Co.....			7	37,985,000
Tampa Ship & Engine Co.....			3	40,606,500
Lake Washington Shipyards.....			6	25,680,000
Associated Shipbuilders, Inc.....			4	17,120,000
Willamette Iron & Steel Corporation.....			2	25,680,000
Navy yard	July 1, 1939	Project order total	July 1, 1941	Project order total
Portsmouth.....	7	\$34,643,000	17	\$82,319,000
Boston.....	10	59,030,000	19	139,406,000
New York.....	3	125,187,000	5	324,675,000
Philadelphia.....	5	115,552,000	9	394,369,000
Norfolk.....	7	66,086,500	8	199,841,500
Charleston.....	6	30,793,000	14	93,042,000
Mare Island.....	4	28,441,000	11	93,557,000
Puget Sound.....	7	33,313,000	14	97,156,000

EXHIBIT No. 9-A

[Copy]

THE WHITE HOUSE,
Washington, June 29, 1940.

The Honorable the ACTING SECRETARY OF THE NAVY.

MY DEAR MR. SECRETARY: Pursuant to the authority vested in me by section 2 (a) of an act entitled "An act to expedite naval shipbuilding, and for other purposes" and subject to the provisions and conditions of said section, I hereby deem it to be in the best interests of the national defense during the national emergency declared by me on September 8, 1939, to exist that the Secretary of the Navy be authorized, after the date of approval of said act, to negotiate contracts, for the acquisition, construction, repair or alteration of complete naval vessels or aircraft, or any portion thereof, including plans, spare parts, and equipment therefor, that have been or may be authorized, and also for machine tools and other similar equipment, without advertising or competitive bidding.

However, such authority shall not be exercised unless the Secretary of the Navy shall find and determine that if advertising or competitive bidding were required, the bids submitted pursuant to such advertising would not represent the operation of effective competition or unless the Secretary of the Navy finds and determines that advertising for a reasonable time would seriously hamper, impede and delay the acquisition by the Secretary of the Navy of the items specified above.

Such contracts may be negotiated on any basis or system (other than on a cost-plus-a-percentage-of-cost system) which the Secretary of the Navy shall deem appropriate and may include any type of contract heretofore entered into by the Secretary of the Navy after competitive bidding.

Prior to the execution of any such contract the Secretary of the Navy shall find and determine that the price or prices included therein is fair and reasonable, having due regard to (a) the cost of production of the same or comparable items in efficient, privately owned plants operating at a rate of capacity equal to that at which the contractor's facilities will be operated during the period of the performance of the contract, and (b) wherever possible, the cost of production of the same or comparable items in Government-owned plants.

Sincerely yours,

/s/ FRANKLIN D. ROOSEVELT.

EXHIBIT No. 9-B

[Copy]

NAVY DEPARTMENT,
Washington, July 5, 1940.

Bureau of Supplies and Accounts.

From: The Secretary of the Navy.

To: All bureaus and offices of the Navy Department.

Subject: Negotiation of contracts for supplies, materials, and equipment for the new naval-construction program.

Enclosure: (A) Photostat of letter from the President dated June 29, 1940, to the Acting Secretary of the Navy.

1. Section 2 of the act, "An act to expedite naval shipbuilding, and for other purposes," approved June 28, 1940, provides as follows:

"That whenever deemed by the President of the United States to be in the best interests of the national defense during the national emergency declared by the President on September 8, 1939, to exist, the Secretary of the Navy is hereby authorized to negotiate contracts for the acquisition, construction, repair, or alteration of complete naval vessels or aircraft, or any portion thereof, including plans, spare parts, and equipment therefor, that have been or may be authorized, and also for machine tools and other similar equipment, with or without advertising or competitive bidding upon determination that the price is fair and reasonable, and deliveries of material under all orders placed pursuant to the authority of this section and all other naval contracts or orders and all Army contracts and orders shall, in the discretion of the President, take priority over all deliveries for private account or for export: *Provided*, That the Secretary of the Navy shall report every 3 months to the Congress: the contracts entered into under the authority of this section: *Provided further*, That contracts negotiated pursuant to the provisions of this section shall not be deemed to be contracts for the purchase of such materials, supplies, articles, or equipment as may usually be bought in the open market within the meaning of section 9 of the Act entitled "An Act to provide conditions for the purchase of supplies and the making of contracts by the United States, and for other purposes," approved June 30, 1936 (49 Stat. 2036; U. S. C., Supp. V, title 41, secs. 35-45): *Provided further*, That nothing herein contained shall relieve a bidder or contractor of the obligation to furnish the bonds under the requirements of the Act of August 24, 1935 (49 Stat. 793; 40 U. S. C. 270 (a) to (d)): *Provided further*, That the cost-plus-a-percentage-of-cost system of contracting shall not be used under the authority granted by this subsection to negotiate contracts; but this proviso shall not be construed to prohibit the use of the cost-plus-a-fixed-fee form of contract when such use is deemed necessary by the Secretary of the Navy: *And provided further*, That the fixed fee to be paid the contractor as a result of any contract entered into under the authority of this subsection, or any War Department contract entered into in the form of cost-plus-a-fixed-fee, shall not exceed 7 per centum of the estimated cost of the contract (exclusive of the fee as determined by the Secretary of the Navy or the Secretary of War, as the case may be)."

2. The authority contained in this act is intended to broaden and supplement, but not to displace, the present method of procurement of material and equipment essential to the construction or repair of any complete naval vessel or aircraft or any portion thereof. All requisitioning and purchasing agencies are enjoined to

employ the conventional method of procurement by advertising for competitive bids as long as this method proves effective and economical. The method of procurement by negotiation, without competition, will be employed only when advertising cannot be resorted to without detriment to the interests of the Government.

3. Further, the authority contained in this act shall not be exercised unless the Secretary of the Navy shall find and determine that if advertising of competitive bidding were required, the bids submitted pursuant to such advertising would not represent the operation of effective competition or unless the Secretary of the Navy finds and determines that advertising for a reasonable time would seriously hamper, impede, and delay the acquisition by the Secretary of the Navy of the items specified above.

4. Such contracts may be negotiated on any basis or system (other than on a cost-plus-a-percentage-of-cost system) which the Secretary of the Navy shall deem appropriate and may include any type of contract heretofore entered into by the Secretary of the Navy after competitive bidding.

5. Prior to the execution of any such contract the Secretary of the Navy shall find and determine that the price or prices included therein is fair and reasonable having due regard to (a) the cost of production of the same or comparable items in efficient, privately owned plants operating at a rate of capacity equal to that at which the contractor's facilities will be operated during the period of the performance of the contract, and (b) wherever possible, the cost of production of the same or comparable items in Government-owned plants.

6. When procurement by negotiation without competition is deemed necessary, under the authority conferred by this act, the requisition or contract shall bear certification, over the signature of the Chief of the Bureau having technical cognizance of the material, of the reasons necessitating procurement by this method. Similar certification shall be made that the price or prices included therein is fair and reasonable, having due regard to (a) the cost of production of the same or comparable items in efficient, privately owned plants operating at a rate of capacity equal to that at which the contractor's facilities will be operated during the period of the performance of the contract, and (b) wherever possible, the cost of production of the same or comparable items in Government-owned plants.

7. Such requisition or contract will be submitted by way of the Judge Advocate General to the Secretary of the Navy for his determination in accordance with paragraphs 3 and 5 of this letter.

/s/ LEWIS COMPTON, *Acting*.

EXHIBIT No. 10, introduced on p. 187, is on file with the committee

EXHIBITS Nos. 11-A to 11-D, introduced on p. 188, are on file with the committee

EXHIBITS Nos. 12-A to 12-I, introduced on p. 188, are on file with the committee

EXHIBITS Nos. 13-A to 13-H, introduced on p. 188, are on file with the committee

EXHIBITS Nos. 14-A to 14-F, introduced on p. 189, are on file with the committee

EXHIBIT No. 15, introduced on p. 191, is on file with the committee

EXHIBIT No. 16, introduced on p. 191, is on file with the committee

EXHIBIT No. 17, introduced on p. 191, is on file with the committee

EXHIBIT No. 18

MAN POWER CHART

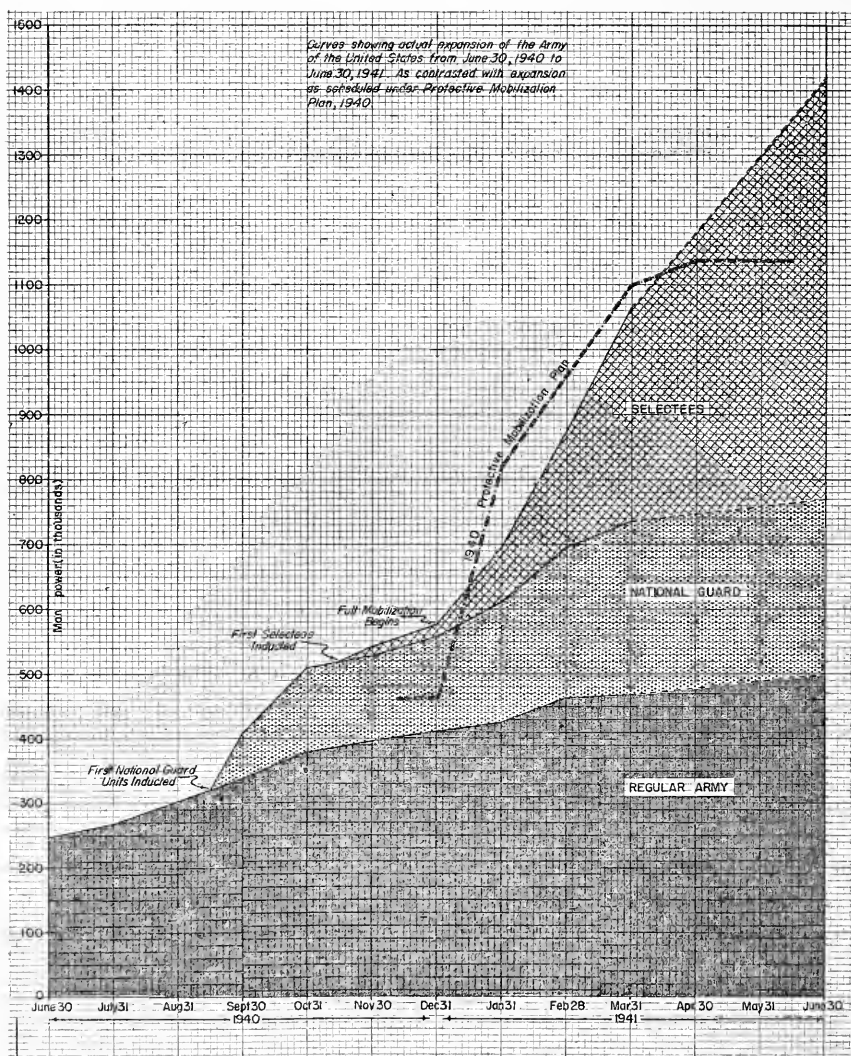


EXHIBIT No. 19, introduced on p. 195, is on file with the committee

EXHIBIT No. 20 appears in text on p. 197

EXHIBIT No. 21, introduced on p. 196, is on file with the committee

EXHIBIT No. 22, introduced on p. 197, is on file with the committee

EXHIBIT No. 23, introduced on p. 198, is on file with the committee

EXHIBIT No. 24, introduced on p. 200, is on file with the committee

EXHIBIT No. 25, introduced on p. 202, is on file with the committee

EXHIBIT No. 26, introduced on p. 203, is on file with the committee

EXHIBIT No. 27, introduced on p. 205, is on file with the committee

EXHIBIT No. 28 appears in the text on p. 207, *supra*

EXHIBIT No. 29, introduced on p. 210, is on file with the committee

EXHIBIT No. 30, introduced on p. 210, is on file with the committee

EXHIBIT No. 31

[Submitted by Col. Stephen J. Chamberlin, Chief, Construction and Real Estate Branch, Supplies Division,
War Department General Staff]

Comparison of loads¹ at selected stations

	Protective mobilization plan 1940			Present maximum
	Maximum up to 90 M	150 M	180 M	
Fort Devens	4,021	800	0	23,241
Fort Dix	8,618	2,145	0	26,488
Fort Monmouth	4,610	1,514	1,211	8,646
Aberdeen Proving Ground	4,913	230	230	8,165
Camp Lee	17,130	0	0	21,901
Fort Belvoir	15,499	0	0	16,471
Fort Eustis	26,888	6,265	1,958	15,950
Fort Meade	15,372	11,714	234	21,915
Camp Beauregard area ²	24,934	6,706	9,398	56,085
Camp Blanding	14,312	0	0	46,202
Camp Jackson	29,244	0	0	39,115
Camp Shelby	26,976	4,178	0	48,346
Fort Benning	30,971	5,259	5,259	37,918
Fort Bragg	25,237	11,872	1,409	55,546
Fort McClellan	40,816	562	0	19,312
Fort Knox	27,203	400	0	23,461
Camp Grant	4,600	0	0	9,500
Camp Robinson	12,692	12,293	138	22,927
Fort Riley	4,978	3,605	3,286	15,458
Camp Hulen	14,311	0	0	10,546
Fort Bliss	26,009	3,411	1,817	23,763
Fort Huachuca	15,089	0	0	5,292
Fort Sill	17,896	10,859	0	19,828
San Luis Obispo	14,410	0	0	18,269
Camp Ord	18,527	562	0	21,570
Fort Lewis	21,844	4,995	1,409	43,099
Fort Warren	5,945	1,649	171	10,583

¹ All loads shown are exclusive of overhead which if included would require a proportional increase of all figures but would not materially affect the proportions shown.

² Includes Camp Beauregard, Camp Claiborne, and Camp Livingston.

EXHIBIT No. 32, introduced on p. 251, is on file with the committee

EXHIBIT No. 33, introduced on p. 251, is on file with the committee

EXHIBIT No. 34, introduced on p. 258, is on file with the committee

EXHIBIT No. 35, introduced on p. 281, is on file with the committee

EXHIBIT No. 36

[Submitted by Col. Arthur R. Wilson, General Staff Corps, U. S. Army.]

1926—Dwight F. Davis, Secretary of War, Annual Report of the Secretary of War, 1926, pages 40-41:

"* * * Heavy demands are made upon the Regular Army to maintain installations and units which may serve to assist the readiness of other elements of the Army of the United States. Furthermore, since the World War, not only have there come into the organization of the Army such new essential branches as the Air Corps and the Chemical Warfare Service, but within the old branches provisions have been made for the development of tanks, machine guns, railway artillery, and other modern equipment. Despite the foregoing factors the enlisted personnel of the Regular Army on the last day of this fiscal year numbered but 17,000 more soldiers than was the case 10 years ago.

"Prior annual reports have contained discussions of the requisites for actual fulfillment of the provisions of the National Defense Act. As yet the act remains an unaccomplished plan by reason of only a partial execution of its provisions. We should not blindly delude ourselves into the belief that a plan on paper is an accomplished thing. Congress has provided the plan. Its fulfillment depends on the decisions of the citizens of the United States."

1926—J. L. Hines, major general, Chief of Staff, Annual Report of the Secretary of War, 1926, page 57:

"* * * Incident to the gradual reductions and curtailments we considered it necessary to adhere to the principles of the National Defense Act of 1920. For this reason the framework of six field armies was retained, though the reductions and curtailments one at a time have caused an inevitable weakening of the original structure by the removal of important struts. This means a sacrifice in readiness. Units must be organized in time of need if we are to have a proper tactical balance. Time is, as it always has been, an all-important factor in military operations, and never is it of more importance than in the early stages where a few divisions ready to take the field may gain successes in the first month which might well be decisive. This situation actually confronts us and merits the most serious consideration. * * *"

1930—Final report of Chief of Staff, C. P. Summerall, General; page 53:

"In times of profound peace, we are prone to forget the lesson of all our past wars that the issue of campaigns depends as much upon the preparations for them as upon the actual conduct of the war itself. In the preoccupations of the current problems of life, defects in the organization and administration of the peacetime Military Establishment and the provisions for its war expansion that will stand out in glaring relief upon the outbreak of war, pass unnoticed by the great body of American citizenship and even by many of the responsible political and governmental authorities whose current duties do not bring them into intimate contact with the activities of the agencies charged with the national defense. The force of public opinion which spends itself in demands for action on the outbreak of an emergency and for the futile investigations on the conduct of the war during its course or after its termination is lacking to correct deficiencies in preparations which can be only partially and slowly corrected, if corrected at all, in the course of a war.

"Already 12 years have elapsed since the termination of the World War, and its lessons are gradually growing dimmer in the minds of our people. * * *"

1931—Patrick J. Hurley, Secretary of War, pages 3 and 40:

"* * * Rigid governmental economy is fully consonant with great public expenditures, and all departmental disbursements have been closely scrutinized with a view toward realizing operative economies and toward the elimination of waste. One of the most conspicuous results of these efforts has been the adoption of a program looking to the abandonment of 53 superfluous Army posts with resultant diminution of overhead and upkeep expenses. In the case of several posts the War Department already possesses authority to take this step. In other instances congressional action will be necessary. * * *"

"* * * The dispersion of the Regular Army in small detachments throughout continental United States makes it impracticable to have immediately available an adequate, balanced, and efficient force of regular troops to meet the first phases of emergency. The few Infantry troops in the United States available for immediate field service are distributed among 24 regiments located at 45 different posts with a battalion or less at 34. Artillery troops are in a similar situation. They are distributed among 7 regiments and 7 separate battalions located at 19 different posts with a battalion or less at 16. Under such conditions combined tactical training in the Regular Army alone is rendered most difficult. * * *"

1931—Douglas MacArthur, General, Chief of Staff, page 41:

"* * * Stagnated promotion has been another matter of immediate concern to every officer, and therefore to the War Department * * *"

1932—Patrick J. Hurley, Secretary of War, Annual Report of the Secretary of War, 1932, pages 1 and 4:

"* * * The War Department appropriation bill for 1933 as initially introduced provided for a reduction of 2,000 in the commissioned strength of the Regular Army, discontinued the citizens' military training camps and the camps of the Reserve Officers' Training Corps, and denied compensation to Reserve officers ordered to normal active duty. Fortunately, the House of Representatives refused to enact the three last-named provisions and receded on its stand for the elimination of officers after the Senate had refused to concur. There can be no doubt that the majority of those supporting these measures in Congress were actuated by the most laudable motives for the reduction of governmental expenditures. But this worthiness of motive should not be permitted to obscure the fact that its proposed practical applications would have destroyed the present intelligent and efficient system of our national defense."

* * * * *
 "There is no economy in money spent ineffectively; and unbalanced military expenditures, appropriated with a view only to curtailment of funds, are infinitely more extravagant than are larger sums allotted on an intelligent and practical basis. In the event that broad considerations of national welfare should seem to require in future the fundamental modification of our national defense policy, a full and expert inquiry is strongly advocated as to the best way of attaining the results desired and of staying within the general limits of such appropriations as may be deemed advisable. National defense should never be permitted to become a partisan question * * *"

* * * * *
 "For some years the strength of the Regular Army has been stabilized at 118,750 enlisted men, exclusive of Philippine Scouts."

* * * * *
 1932—Douglas MacArthur, General, Chief of Staff, page 56:

"* * * The foundation of our defensive structure is the professionalized element thereof. The Regular Army should be ready at all times to furnish any troops required by internal emergencies and initial defense against surprise attack. The civilian components depend upon it for instruction, leadership, and technical progress, while in case of general mobilization it is the model and directing head for all. The National Defense Act provided that it should comprise approximately 18,000 officers and 280,000 men. During the decade just past this strength has, in the interests of immediate economy, been progressively reduced until appropriations are now made on the basis of 12,000 officers and 125,250 men, including the Philippine Scout contingent. On June 30, 1932, the actual figures were 12,180 officers and 119,888 enlisted men. This is below the point of safety."

"The continuing tendency to cut further into this already weakened backbone of our military skeleton has been viewed with great concern by the War Department. * * *"

* * * * *

"Not all existing deficiencies pertain to numerical strength, but in each case correction involves, in varying degree, the element of cost. Appropriate remedies for some of them would require a considerable financial outlay. In these cases it is unquestionably the consensus of popular and official opinion that the country should continue to assume, during the period of the present economic stringency, whatever additional risk to national security is inherent in these shortages. Regardless of any person's individual convictions concerning the wisdom of such a policy, it must be loyally and whole-heartedly accepted by every public servant. * * *

1933—George H. Dern, Secretary of War: No comments.

1933—Douglas MacArthur, General, Chief of Staff, pages 25 and 26.

"* * * In the continental United States there is today a total of some 87,000 enlisted men of the Regular Army. Normally, about 55,000 of these, widely scattered in military stations throughout the whole country, are available for assignment to combat units."

"* * * In spite of difficulties, slow progress has been realized. But under the situation now facing us not only will progress be practically suspended, but many of the results so far attained will be lost. No funds will be available for the modest expenses incurred in field exercises for the Regular Army. Fewer Reserve officers can be called to active duty for 2 weeks' training. Lack of money will prohibit nearly all target practice and in other ways limit the opportunity of the soldier to learn and remain familiar with the practical phases of his profession. While at the end of the fiscal year it appeared probable that theoretical instruction could be carried forward in 1934 on about the same scale as in 1933, this, without appropriate practical work, cannot sustain efficiency."

1934—Douglas MacArthur, General, Chief of Staff: After pointing out that the National Defense Act provides for 17,728 officers and 280,000 enlisted men, the Chief of Staff stated (p. 34):

"* * * In spite of its moderate purposes, the National Defense Act has been given but limited and decreasing support. Our military framework has become so attenuated that the ideal of reasonable security sought by the Congress which enacted it is far from attainment. Our Regular Army and National Guard are at considerably less than half the strength contemplated in the law. The Officers' Reserve Corps is inadequately supported in the essentials of training. We have no Enlisted Reserve. Stocks of matériel are in vital respects inadequate even for limited forces, and, such as they are, comprise principally World War equipment, manifestly obsolescent.

The preparatory missions devolving upon the Military Establishment in time of peace cannot in some respects be efficiently performed; while the grave responsibilities that would fall to it in emergency would require frantic improvisations, and wasteful and possibly ineffective sacrifice of the Nation's manhood and material resources. These are facts—demonstrable both in the light of history's lessons and through logical analysis of existing conditions.

"This blunt expression of War Department conviction divulges the secrets of our weakness, which if known only to professional soldiers had probably best remain concealed. Unfortunately, they are secrets only to our own people in whom resides exclusively, in the last analysis, the power for correction. They are fully known to qualified military observers abroad and to all those governments that give more credence to the conclusions of the trained soldier than we do."

1935—Douglas MacArthur, General, Chief of Staff, page 42:

"* * * For 13 years, the curve representing the Army's ability to perform its vital emergency missions has been trending continuously and dangerously downward. The principal causes have been insufficient strength in the Regular Force, growing obsolescence in important items of equipment for all components, injudicious curtailment of training, progressive consumption of reserve supplies, and inadequacy of funds for many essential activities. Confronted by these obstacles, the Army, though it has intensified effort and resorted to every possible expedient, has been powerless to preserve effectiveness at a satisfactory level.

"Elimination of difficulties involving the broad questions of size and general financial support of the Army does not fall within the scope of military authority. Concerning such matters, the War Department function is advisory only and in this capacity it frequently, between 1922 and 1935, expressed its conviction that in conditions then prevailing resided grave potentialities for disaster. During the past 5 years, the Department has insistently urged upon appropriate congressional committees, the stark seriousness of this situation.

"In persisting in this effort, the War Department has never been concerned with establishing the validity of its own excuses for any possible failure of the future, but only in attempting to assure that no such failure, with its disastrous consequences to the country, should occur."

1936—Harry H. Woodring, Secretary of War, pages 1 and 2:

"In the light of present world conditions, we cannot afford to neglect measures for our now national safety. A secure defense is our most dependable guaranty against aggression by others."

"Under the authority of Congress the strength of the enlisted men of the Regular Army is being gradually increased so that it will reach 165,000 by the end of the fiscal year 1937."

1936—Malin Craig, Chief of Staff, page 39:

"Urgent necessity exists for a suitable public building in the District of Columbia in which to house the various activities of the War Department. The Department still occupies in whole or in part a large number of widely separated buildings, many of which are rented. Lack of adequate quarters and the dispersion of subordinate agencies are particularly disadvantageous to the military divisions of the War Department, since each of its several sections is functionally a part of a single team. Efficiency is possible only where all are suitably concentrated. The great disadvantage resulting from this partial occupancy of widely separated buildings is further aggravated by overcrowding brought about by the necessity of providing space for various relief agencies. Priceless records are stored and maintained under conditions which expose them to loss and damage."

1937—Malin Craig, Chief of Staff, page 29:

"The Appropriation Act for the fiscal year 1937 provided sufficient funds for raising the enlisted strength from 147,000 to 165,000 in 12 equal increments. The latter figure was the strength authorized by Congress in 1936, but budgetary action limited the figure during that fiscal year to 147,000. In the fiscal year 1938 limitations will restrict the average strength to 162,000. That figure is 118,000 short of the strength prescribed by the National Defense Act of 1920. * * *

"Legislation enacted by the Seventy-fourth Congress authorized the President to determine the grades and ratings of enlisted men and do away with the former rigid system of fixed percentages. Increases in appropriations provided for slight increases in the pay of the Army for grades and ratings during the fiscal year 1938. Notwithstanding these increases the schedule of pay for these purposes is still too low. The great additions that have been made in the varieties and complexities of equipment have necessarily increased the requirement for highly skilled mechanics and technicians. Such training is given in the Army, but due to the low pay schedule a large percentage of the men so trained leave the Army to accept positions open to them in other departments of the Government or in civil life. Such men should be offered greater inducements to remain in the service. * * *

"Authorization was also given for 100 additional officers to provide instructors for new units of the Reserve Officers Training Corps. Fiscal limitations, however, have prevented this increase in officers."

1938—Malin Craig, General, Chief of Staff:

"* * * It is a source of gratification to record that legislation enacted at the last session of Congress authorized the attainment of 165,000 enlisted men."

"Our Regular Army at this latter strength ranks only 18th among the standing armies of the world. This marked inferiority in strength suggests that it is all the more imperative that the armament of this force be equal to that it may be called upon to face. Here, too, we fell behind. We failed to keep pace with the development in defensive weapons that has occurred since the World War."

"* * * Until the past year the limited amounts appropriated annually for armament were devoted largely to the procurement of aircraft. To a lesser extent they were applied to the procurement of tanks and similar combat vehicles. Substantially little was devoted to the new defensive weapons."

1938—Harry H. Woodring, Secretary of War, page 2:

"In our mobilization planning and our military preparations we contemplate no aggression against any power on earth; we visualize only the possible necessity for armed defense of our own domains. The title 'Protective mobilization plan' is fully indicative of our intent."

1939—Malin Craig, General, Chief of Staff:

After summarizing the necessity for keeping up to date War plans and the necessity for realism in the War Department mobilization plans, General Craig says (p. 23):

"* * * Military planning is one of the most serious responsibilities that can confront a people or a group of men. The plans deal with the Nation's future, with hundreds of thousands of lives, and untold wealth. They must be coldly and painstakingly considered in the light of intense realism as the basis of all future military strategy and tactics. What transpires on prospective battlefields is influenced vitally years before in the councils of the Staff and in the Legislative Halls of Congress. Later I shall refer again to time as the keystone of preparation, because it is the only thing that may be irrevocably lost and it is the thing first lost sight of in the seductive false security of peaceful times. It is because of this and because neither the rank and file of our citizenry nor their political representatives should shoulder the responsibilities of a continuous evaluation of the time factors of war plans, that there is here recommended a military plan that is in fact a 'position in readiness.'"

"* * * The War Department has long recognized the need for acquiring additional lands to meet essential peacetime requirements. The submission of recommendations to the Congress for the acquisition of land has been deferred in favor of the more urgent needs for construction of barracks and quarters. The need for additional land has now become acute and Congress, accordingly, has been requested to authorize the acquisition of lands for the enlargement of training areas and target ranges in localities where such facilities are inadequate or entirely lacking."

The War Department asked for \$5,000,000.

EXHIBIT No. 37

[Signed statements of prior business connections of members of Construction Advisory Committee, submitted by the War Department]

STATEMENT OF PRIOR BUSINESS CONNECTIONS OF RICHARD HENRY TATLOW III, MEMBER, CONSTRUCTION ADVISORY COMMITTEE

Immediately prior to my acceptance as a member of the Construction Advisory Committee, I was a member of the Contract Board and an assistant of the Design and Engineering Section, Quartermaster Corps, War Department, and had no business connections.

Prior to my joining the War Department's staff in July 1940 I was a partner of Harrington and Cortelyou, consulting engineers. I resigned my partnership prior to accepting employment and have had no interest whatsoever in the firm's activity since that time.

My family own the Tatlow Turntable Attachment Co. of Denver, Colo., of which I am a nominal officer, but not active in any fashion. This company has not solicited business in years, and has no connection with any Government work.

As an employee of the War Department, I have not dealt relative to contracts with any firm with which I have had any connection, other than that I hold, with my wife, approximately 50 shares of common stock in du Pont de Nemours, Inc. As an assistant to the Chief, Engineering Branch, I was active in the discussion of their contract at the Indiana Ordnance Works; I had no part in their selection. I have numerous other small holdings of securities and through insurance companies have indirectly interest in other companies. I do not believe any of these companies have come before me in any capacity.

(Signed) R. H. TATLOW.

STATEMENT OF PRIOR BUSINESS CONNECTIONS OF FORREST S. HARVEY, MEMBER, CONSTRUCTION ADVISORY COMMITTEE

From April 1920 to June 1922 I was the joint representative of the American Sugar Refining Co. and the Chas. T. Main Co., employed on a salary basis to supervise the construction of the American Sugar Refining Co.'s new refinery at Baltimore, Md. Chas. T. Main, Inc., were the designing engineers on that project.

Immediately prior to my agreeing to become a member of the Construction Advisory Committee I was employed on a salary basis by Leeds, Hill, Barnard & Jewett of Los Angeles to supervise for them the construction of a new harbor at Hueneme, Calif. This engagement was for the period of December 16, 1938, to July 1, 1940.

(Signed) F. S. HARVEY.

STATEMENT OF PRIOR BUSINESS CONNECTIONS OF ALONZO J. HAMMOND, MEMBER,
CONSTRUCTION ADVISORY COMMITTEE

Alonzo J. Hammond, consulting engineer, owns and has operated for a period of years a consulting engineering practice in Chicago, Ill.

An engagement immediately prior to acceptance of an appointment on the Construction Advisory Committee was that of consultant to the construction quartermaster of the War Department on field operations.

No contacts with any firms whatsoever that have contracts or otherwise.

(Signed) ALONZO J. HAMMOND.

APRIL 19, 1941.

STATEMENT OF PRIOR BUSINESS CONNECTIONS OF F. J. C. DRESSER, MEMBER,
CONSTRUCTION ADVISORY COMMITTEE

APRIL 19, 1941.

Immediately prior to my acceptance as a member of the Construction Advisory Board, I was engaged in operating the Dresser Co., engineers and builders, of Cleveland, Ohio, of which I was sole owner and also since July 1, 1939, to July 1940, served as property manager for the real-estate firm of Ostendorf & Morris, of Cleveland, Ohio.

The Advisory Board has not recommended any firm for contracts that I had previously been associated with.

(Signed) F. J. C. DRESSER.

STATEMENT OF PRIOR BUSINESS CONNECTIONS OF GEORGE R. SPALDING,
CHAIRMAN, CONSTRUCTION ADVISORY COMMITTEE

Immediately prior to my acceptance as a member of the Construction Advisory Committee, I was living in retirement in Bradenton, Fla., and I have this day asked that I be returned to inactive status.

I own a small amount of stock in the Girdler Corporation of Louisville, Ky., and carry a fair amount of insurance and may thus have an indirect interest in some of the firms which may have defense contracts.

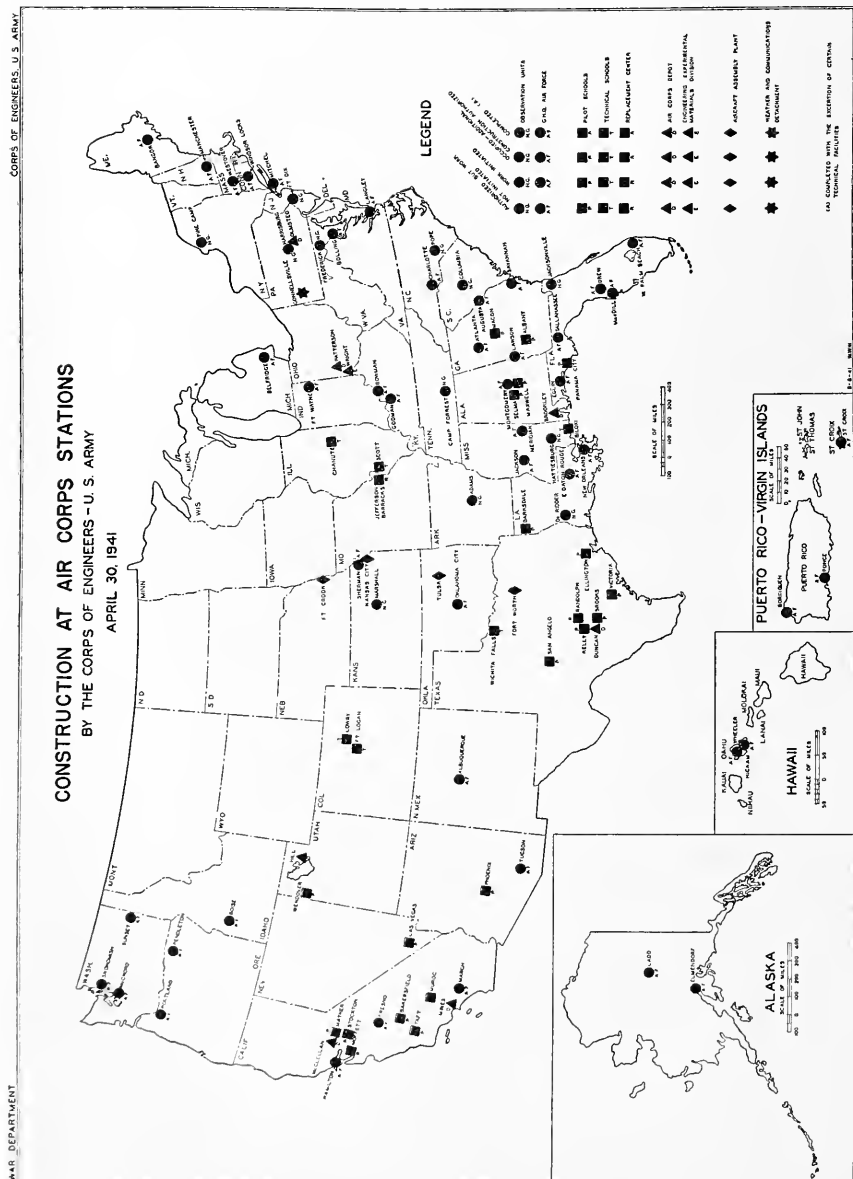
(Signed) GEORGE R. SPALDING.

EXHIBIT No. 38, introduced on p. 313, is on file with the committee

EXHIBIT No. 39, introduced on p. 313, is on file with the committee

SUPPLEMENTAL DATA

The following chart and data of schedules of construction projects allocated to Engineering Corps of the United States Army are included herewith in connection with the testimony of Hon. Henry L. Stimson, Secretary of War, supra, page 10.



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WAR DEPARTMENT
CORPS OF ENGINEERS, U.S. ARMY

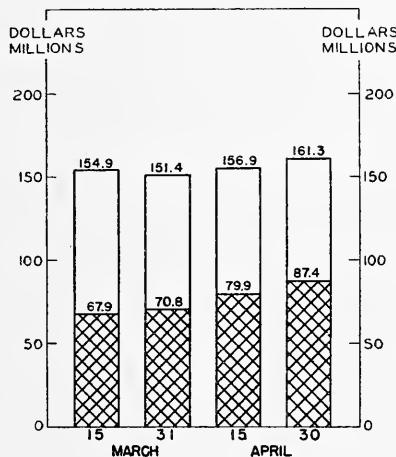
WAR DEPARTMENT

CONSTRUCTION AT AIR CORPS STATIONS BY THE CORPS OF ENGINEERS-U.S. ARMY

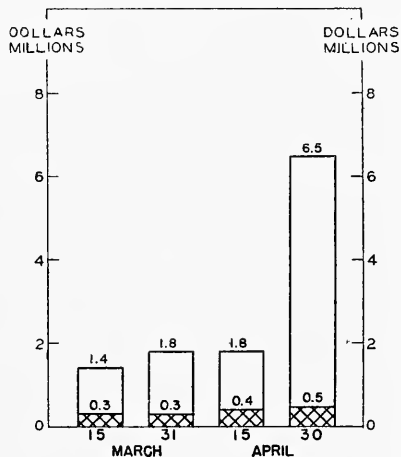


TOTAL COST ESTIMATED
VALUE IN PLACE ESTIMATED

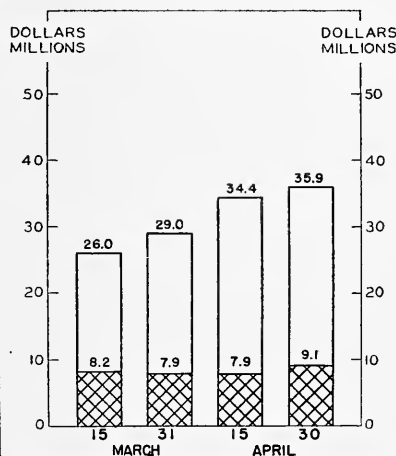
G.H.Q. FORCE



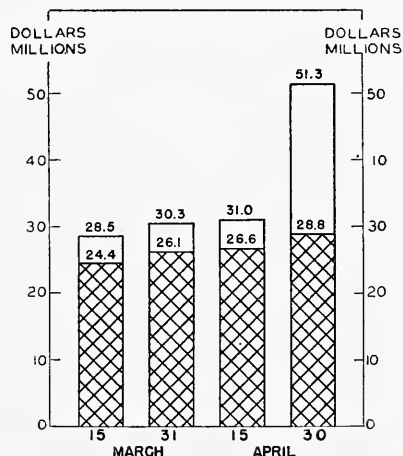
OBSERVATION UNITS



PILOT SCHOOLS*



TECHNICAL SCHOOLS



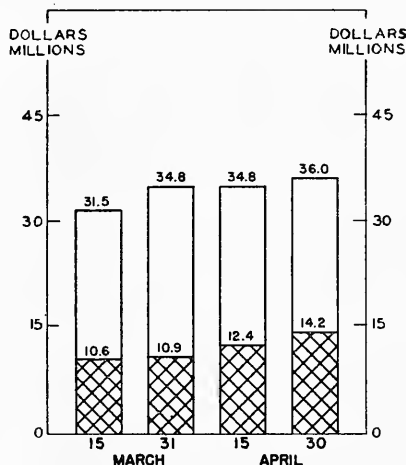
*Reclassification of some stations.

CONSTRUCTION AT AIR CORPS STATIONS BY THE CORPS OF ENGINEERS-U.S. ARMY

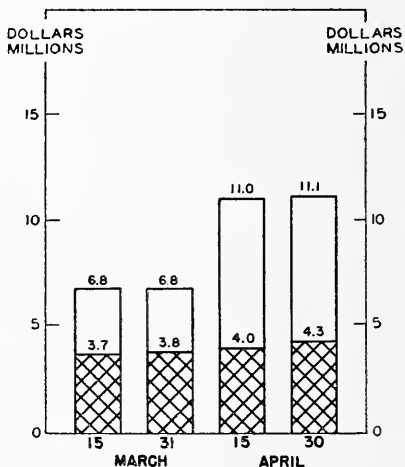


TOTAL COST ESTIMATED
VALUE IN PLACE ESTIMATED

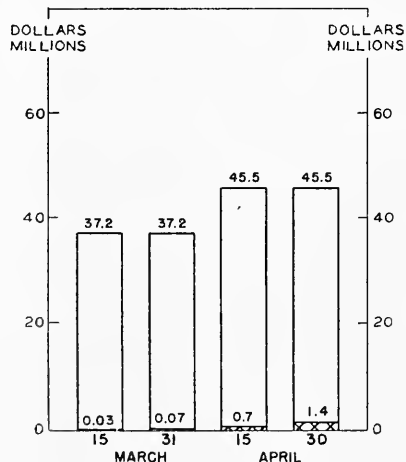
DEPOTS AIR CORPS



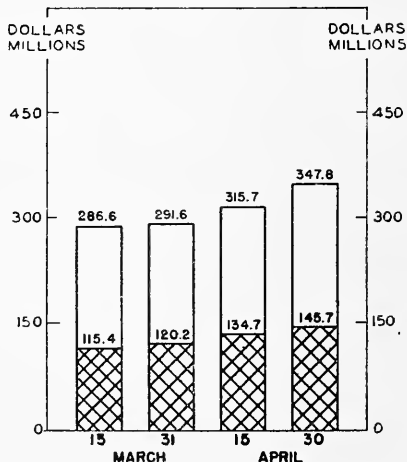
DEPOTS ENGINEERING EXPERIMENTAL



AIRCRAFT ASSEMBLY PLANTS



ALL PROJECTS



The following table of figures on costs of schedules of various contracts is included at this point in connection with the testimony of Hon. Henry L. Stimson, Secretary of War, supra, page 44.

Name	Original estimate	Total original estimate and additional to May 3, 1941	Completed cost or cost to complete	Difference
Aberdeen Proving Ground, Md.	\$5,464,108	\$6,230,115	\$10,340,027	\$4,109,912
Camp Berkeley, Tex.	4,406,171	7,131,619	8,003,503	871,884
Fort Belvoir, Va.	6,459,660	10,487,156	14,323,452	3,836,296
Camp Blanding, Fla.	10,080,370	14,865,305	28,531,666	13,666,361
Fort Bliss, Tex.	3,412,815	8,798,811	11,621,802	2,822,991
Camp Bowie, Tex.	4,831,690	8,516,253	17,843,466	9,327,213
Fort Bragg, N. C.	4,312,600	23,706,844	39,947,035	16,240,191
Camp Callan and Fort Rosecrans, Calif.	2,585,100	3,997,494	6,759,909	2,762,415
Camp Claiborne, La.	4,891,690	8,106,871	21,795,677	13,688,806
Camp Croft, S. C.	7,518,475	8,088,637	9,702,198	1,613,561
Camp Davis, N. C.	9,612,510	11,270,167	17,189,014	5,918,847
Fort Devens and Lovell General Hospital, Mass.	9,163,965	12,841,706	25,127,226	12,285,520
Camp Edwards, Mass.	8,296,700	11,804,001	27,560,967	15,756,966
Fort Eustis, Va.	5,821,550	6,931,970	7,194,907	262,937
Camp Forrest, Tenn.	9,587,750	11,473,734	23,515,833	12,042,099
Camp Grant, Ill.	4,252,210	7,198,940	8,271,743	1,072,794
Camp Haan and Mojave Desert Firing Range, Calif.	2,514,665	4,903,658	7,795,839	2,892,171
Camp Hulon, Tex.	1,906,750	3,733,561	5,758,772	2,025,211
Indiantown Gap Military Reservation, Pa.	6,211,765	9,500,577	16,767,527	7,266,951
Fort Knox, Ky.	2,939,595	13,698,940	18,577,104	4,878,164
Camp Lee, Va.	8,475,906	10,418,333	12,910,000	2,491,667
Camp Livingston, La.	4,891,690	9,853,649	21,795,677	11,942,028
Fort McClellan, Ala.	3,702,935	5,711,617	8,097,629	2,386,012
Fort George G. Meade, Md.	8,255,954	12,553,515	21,561,445	9,007,930
Fort Monmouth, N. J.	3,510,071	4,317,894	6,628,837	2,310,943
Pine Camp, N. Y.	6,530,880	10,120,766	16,038,186	5,917,420
Camp Polk, La.	8,144,858	10,279,826	16,530,329	6,250,503
Fort Riley, Kans.	4,498,060	7,488,829	13,903,194	6,414,365
Camp Roberts, Calif.	6,772,090	10,824,340	14,102,140	3,277,800
Camp Robinson, Ark.	5,308,125	7,240,833	11,241,125	4,000,262
Camp San Luis Obispo, Calif.	4,341,685	6,354,973	16,327,803	9,972,820
Camp Shelby, Miss.	10,834,490	13,818,220	23,378,815	9,560,565
Camp Stewart, Ga.	2,839,495	5,108,215	6,832,451	1,724,236
Camp Wallace, Tex.	3,969,950	5,248,034	8,565,193	3,317,159
Fort Francis E. Warren, Wyo.	2,215,500	4,198,555	5,636,257	1,437,702
Camp Wheeler, Ga.	5,994,600	6,821,349	10,540,000	3,718,651
Camp Wolters, Tex.	6,117,950	7,531,498	15,052,130	7,520,722
Fort Leonard K. Wood, Mo.	9,411,325	16,607,818	34,929,958	18,322,140

Name	Original estimate	Additional work	Completed cost or cost to complete	Difference
Alabama Ordnance Works, Ala.	\$35,552,000		\$36,732,000	\$1,180,000
Anniston Ordnance Depot, Ala.	9,598,000		9,345,000	-253,000
Baytown Ordnance Works, Tex.	3,741,000		5,996,000	2,255,000
Coosa River Ordnance Plant, Ala.	10,523,000		9,758,000	-765,000
Denver Ordnance Plant, Colo.	15,355,000		18,370,000	3,015,000
Detroit Ordnance Plant, Mich.	4,593,000		4,888,000	295,000
Edgewood Arsenal, Md.	12,342,000	\$872,000	17,490,000	4,276,000
Elwood Ordnance Plant, Ill.	21,451,000		22,667,000	1,186,000
Hoosier Ordnance Plant, Ind.	17,533,000		16,911,000	-622,000
Indiana Ordnance Works, Ind.	41,066,000		42,245,000	1,179,000
Iowa Ordnance Plant, Iowa	13,085,000	1,428,000	18,122,000	3,609,000
Jefferson Proving Grounds, Ind.	7,555,000		7,095,000	-460,000
Kankakee Ordnance Works, Ill.	23,097,000	3,110,000	34,614,000	8,407,000
Kingsbury Ordnance Plant, Ind.	13,055,000		22,205,000	9,150,000
Lake City Ordnance Plant, Mo.	11,072,000		21,905,000	10,833,000
Morgantown Ordnance Plant, W. Va.	8,014,000		9,843,000	1,829,000
New River Ordnance Plant, Va.	10,897,000		11,651,000	754,000
Ohio River Ordnance Plant, Ky.	3,912,000		4,079,000	167,000
Philadelphia Quartermaster Depot, Pa.	741,140	9,035,000	9,776,140	
Plum Brook Ordnance Plant, Ohio.	7,320,000		7,201,000	-119,000
Radford Ordnance Works, Va.	24,025,000	4,300,000	35,400,000	7,075,000
Ravenna Ordnance Depot, Ohio.	4,412,000		4,823,000	411,000
Ravenna Ordnance Plant, Ohio.	17,776,000	180,000	26,308,000	8,352,000
St. Louis Ordnance Plant, Mo.	14,135,000	2,000,000	23,346,000	7,211,000
Umatilla Ordnance Depot, Oreg.	8,428,000		8,290,000	-138,000
Weldon Springs Ordnance Works, Mo.	10,000,000		13,724,000	3,724,000
Wingate Ordnance Depot, N. Mex.	9,500,000		9,200,000	-300,000
Wolfe Creek Ordnance Plant, Tenn.	10,900,000		10,655,000	-245,000

The following document appears at this point in connection with the testimony of the Honorable Robert P. Patterson, *supra*, page 66.

WAR DEPARTMENT,
OFFICE OF THE UNDER SECRETARY,
Washington, D. C., April 28, 1941.

MEMORANDUM FOR THE UNDER SECRETARY OF WAR

Subject: Special board to consider and advise on amortization certificates to be issued under section 124 of internal revenue code.

There follows a list of men who have accepted your invitation to serve on the above-mentioned board:

James P. Baxter 3d, president of Williams College.
David Dubinsky, president of the International Ladies Garment Workers Union.
Samuel S. Duryee, attorney, New York City.
W. Tudor Gardiner, former Governor of Maine.
Garrard Glenn, professor of law, University of Virginia.
James Hall, former member, executive committee, American Institute of Accountants.
Fred H. Hurdman, former president, American Institute of Accountants.
Bernhard Knollenberg, librarian, Yale University.
James M. Landis, dean of Harvard Law School and former chairman of the Securities and Exchange Commission.
Harold F. Linder, retired, New York City.
William F. Marbury, attorney, Baltimore, Md.
Dave H. Morris, Jr., banker, New York City.
Charles H. Murchison, attorney, Jacksonville, Fla.
George S. Olive, former president, Indiana State Society of Certified Public Accountants.

EDWARD S. GREENBAUM,
Lieutenant Colonel, Signal Corps,
Chief, Tax Amortization Section.

Statement as to the organization and functions of O. P. M. submitted to the special Senate Committee Investigating the National Defense Program, supplementing Mr. W. S. Knudsen's testimony, *supra*, p. 104.

The Office of Production Management was created by Executive order of the President January 7, 1941. The Office of Production Management is a part of the Office of Emergency Management in the Executive Offices of the President provided for under the Reorganization Act of 1939, and operates under the direction of the President. The office consists of the Director General, Mr. Knudsen, Associate Director General, Mr. Hillman, the Secretary of War and the Secretary of the Navy. It has four major divisions established by Executive order: Production, purchases, priorities, and labor.

Office of Production Management was created to increase production for the national defense through mobilization of the material resources and the industrial facilities of the Nation, and in general, the office is charged with the responsibility of assisting in formulating measures and coordinating the activities of the operating defense agencies to this end. The office does not negotiate, award, or execute contracts. Nor does it finance, build, or operate plants. All this work is done by the War and Navy Departments and other operating defense agencies. Under the Executive order, however, the office is charged with certain statutory responsibilities in connection with priorities under section 2 (a) of the act of June 28, 1940, and the authority conferred by section 9 of the Selective Training and Service Act of 1940.

A copy of the Executive order of January 7, 1941, is attached. There are also attached copies of the regulations, adopted by Office of Production Management and approved by the President, defining the set-up and functions of the four major divisions of the office, and of an organization chart showing the internal organization and responsible personnel of the office.

EXECUTIVE ORDER

ESTABLISHING THE OFFICE OF PRODUCTION MANAGEMENT IN THE EXECUTIVE OFFICE OF THE PRESIDENT AND DEFINING ITS FUNCTIONS AND DUTIES

By virtue of the authority vested in me by the Constitution and the statutes, and in order to define further the functions and duties of the Office for Emer-

gency Management with respect to the national emergency as declared by the President to exist on September 8, 1939, and to increase production for the national defense through mobilization of material resources and the industrial facilities of the Nation, it is hereby ordered:

1. There shall be in the Office for Emergency Management of the Executive Office of the President, an Office of Production Management which shall consist of (1) a Director General, and (2) an Associate Director General, each to be appointed by the President, (3) the Secretary of War, and (4) the Secretary of the Navy. The members shall serve as such without compensation but shall be entitled to actual and necessary transportation, subsistence, and other expenses incidental to the performance of their duties.

2. With such advice and assistance as it may require from other departments and agencies of the Federal Government, and subject to such regulations or directions as the President may from time to time prescribe, and subject further to the general policy that the Departments of War and Navy and other departments and agencies of the Government will be utilized to the maximum extent compatible with efficiency, the Office of Production Management shall:

(a) Formulate and execute in the public interest all measures needful and appropriate in order (1) to increase, accelerate, and regulate the production and supply of materials, articles and equipment and the provision of emergency plant facilities and services required for the national defense, and (2) to insure effective coordination of those activities of the several departments, corporations, and other agencies of the Government which are directly concerned therewith.

(b) Survey, analyze, and summarize for purposes of coordination the stated requirements of the War and Navy and other departments and agencies of the Government, and of foreign governments for materials, articles, and equipment needed for defense.

(c) Advise with respect to the plans and schedules of the various departments and agencies for the purchase of materials, articles, and equipment required for defense, to coordinate the placement of major defense orders and contracts and to keep informed of the progress of the various programs of production and supply.

(d) Plan and take all lawful steps necessary to assure the provision of an adequate supply of raw materials essential to the production of finished products needed for defense.

(e) Formulate plans for the mobilization for defense of the production facilities of the Nation, and to take all lawful action necessary to carry out such plans.

(f) Determine the adequacy of existing production facilities and to assure their maximum use; and, when necessary, to stimulate and plan the creation of such additional facilities and sources of production and supply as may be essential to increase and expedite defense production.

(g) Determine when, to what extent, and in what manner priorities shall be accorded to deliveries of material as provided in Section 2 (a) of the Act entitled "An Act to Expedite National Defense and for other Purposes," approved June 28, 1940. Deliveries of material shall take priority, as provided in said Act, in accordance with such determinations and the orders issued in pursuance thereof by the Office of Production Management.

(h) Perform the functions and exercise the authorities vested in the President by Section 9 of the Selective Training and Service Act of 1940.

(i) Serve as the liaison and channel of communication between the Advisory Commission to the Council of National Defense and the Departments of War and Navy with respect to the duties imposed upon the Commission by the following named acts, and with respect to all other matters pertaining to defense purchasing and production: Public, Nos. 667, 781, 800, and 801 and Public Resolution No. 95, 76th Congress.

(j) Perform such other functions as the President may from time to time assign or delegate to it.

3. The Director General, in association with the Associate Director General, and serving under the direction and supervision of the President, shall discharge and perform the administrative responsibilities and duties required to carry out the functions specified in paragraph 2, subject to and in conformity with the policies and regulations (not inconsistent with such regulations as may be issued by the President) prescribed by the Office of Production Management.

4. There shall be within the Office of Production Management the following and such other operating divisions as the President may from time to time determine:

(a) A Division of Production.

(b) A Division of Purchases.

(c) A Division of Priorities.

Each division of the Office of Production Management shall be in charge of a director appointed by the Office of Production Management with the approval of the President.

5. There shall be within the Office of Production Management a Priorities Board composed of six members. A chairman and three other members shall be appointed or designated by the President; the Director General and Associate Director General shall be members, ex officio. The Priorities Board shall serve as an advisory body and, from time to time as may be required by the Office of Production Management, shall make findings and submit recommendations with respect to the establishment of priorities, the placing of mandatory orders, the assignment of preference ratings, the allocation of deliveries, and other related matters. In making its findings and recommendations, the Priorities Board shall take into account general social and economic considerations and the effect the proposed actions would have upon the civilian population.

6. Within the limits of such funds as may be allocated to it by the President on the recommendation of the Bureau of the Budget, the Office of Production Management may employ necessary personnel and make provision for the necessary supplies, facilities, and services. However, the Office of Production Management shall use insofar as practicable such statistical, informational, fiscal, personnel, and other general business services and facilities as may be made available through the Office for Emergency Management or other agencies of the Government.

7. Executive Order No. 8572 of October 21, 1940, as amended by Executive Order No. 8612 of December 15, 1940, is revoked.

FRANKLIN D. ROOSEVELT

THE WHITE HOUSE, January 7, 1941.

(No. 8629)

(F. R. Doc. 41-157; Filed, January 8, 1941; 10:03 a. m.)

OFFICE OF PRODUCTION MANAGEMENT

For Release in Tuesday a. m. papers, March 11, 1941.

The Office of Production Management has issued the following regulations defining the status and describing the functions of its four divisions—Production, Priorities, Purchases, and the Bureau of Research and Statistics.

REGULATION NO. 1

Defining the status of the Division of Production in the Office of Production Management and prescribing its duties and functions

Whereas, Executive Order No. 8629, dated January 7, 1941, created the Office of Production Management and charged it with certain duties, among others, pertaining to production of defense materials; and

Whereas said Executive Order established within the Office of Production Management the Division of Production in charge of a Director appointed by the Office of Production Management with the approval of the President; and

Whereas the Office of Production Management with the approval of the President has appointed John D. Biggers as Director of the Division of Production;

Now, therefore, by virtue of the authority vested in the Office of Production Management by said Executive Order, it is hereby ordered that:

1. The Director of the Division of Production, who shall be known as the Director of Production, shall execute and administer the authorities, duties, and responsibilities of the Office of Production Management pertaining to production as provided in said Executive Order.

2. The Director of Production shall have authority to propose action under Section 9 of the Selective Training and Service Act of 1940, whenever in his opinion it shall be necessary or desirable to acquire materials, articles, or equipment, by action under said Section 9; and all proposals for such action shall be made in the form of a recommendation to the Director of Priorities, who shall proceed thereon in accordance with paragraph 2 of Regulation No. 3.

3. To effectuate and carry out the authorities, duties, and responsibilities assigned to him herein, the Director of Production is hereby authorized:

(a) To establish such organization as the Director of Production may deem necessary to the adequate execution of the functions of the Division of Production including the employment of personnel.

(b) To execute and administer all the authorities, duties, and responsibilities of the Office of Production Management specified in said Executive Order, which relate to—

(1) The production of products and articles needed for defense with respect to which there is any problem of production or any shortage of available production facilities.

(2) The sufficiency of the supply and production of, and the requirements (including government, export, and civilian) for, raw materials, industrial materials, heat, light, and power which enter into the production of products and articles needed for defense.

(3) The development and expansion of facilities to produce such products and articles.

4. The Directory of Production shall exercise the authorities, duties and responsibilities assigned to him herein subject to the jurisdiction and control of the Director General Acting in association with the Associate Director General; and he shall obtain their approval of the creation of the principal subdivisions within the Division of Production.

5. The Director of Production shall make such regular and special reports of his actions pursuant to this Regulation as may be required by the Office of Production Management, and shall cooperate with the heads of other divisions, subdivisions, or agencies of the Office of Production Management, establish methods or procedures for handling any matters with respect to which the functions or activities of their respective divisions, subdivisions, or agencies may interrelate.

6. The Director of Production shall have authority to designate an Assistant or Deputy Director to serve as Acting Director of Production in his absence or inability to act, subject to the approval of the Director General acting in association with the Associate Director General.

7. The Director of Production shall exercise his authority, duties and responsibilities hereunder in cooperation with the Departments of War and Navy and other departments and agencies of the Government, and shall utilize their services and facilities to the maximum extent compatible with efficiency. He shall not assume responsibility for determination of the nature, kinds, types, specifications or quantities of finished military and naval products and articles and facilities required by the Department of War or Navy, nor for the times at which they are required, the terms of orders and contracts therefor, the inspection thereof, the payment therefor, or the handling thereof after completion. He may, however, advise, make recommendations and give assistance to the Departments of War and Navy with respect to all such matters. He may, where necessary, develop sources and methods of production for such products and articles and for the materials which enter into such production. He shall be entitled, in cooperation with or through the Bureau of Research and Statistics, to obtain from the Departments of War and Navy information necessary or appropriate to enable him to exercise his authorities, duties and responsibilities hereunder.

Further, the Division of Production shall exercise its authorities, duties and responsibilities hereunder with as little disruption to civilian requirements as is consonant with the proper exercise of its functions.

WILLIAM S. KNUDSEN,
Director General.

SIDNEY HILLMAN,
Associate Director General.

HENRY L. STIMSON,
Secretary of War.

JAMES V. FORRESTAL,
Acting Secretary of the Navy.

Approved.

JOHN LORD O'BRIAN,
General Counsel.

Attest:

HERBERT EMMERICH,
Secretary.

MARCH 7, 1941.

REGULATION NO. 2

Defining the status of the Division of Purchases in the Office of Production Management and prescribing its duties and functions

Whereas Executive Order No. 8629, dated January 7, 1941, created the Office of Production Management and charged it with certain duties, among others, pertaining to defense purchasing and

Whereas said Executive order established within the Office of Production Management the Division of Purchases in charge of a Director appointed by the Office of Production Management with the approval of the President; and

Whereas the Office of Production Management with the approval of the President has appointed Donald M. Nelson as Director of the Division of Purchases;

Now, therefore, by virtue of the authority vested in the Office of Production Management by said Executive order, it is hereby ordered that:

1. The Director of the Division of Purchases, who shall be known as the Director of Purchases, shall execute and administer the authorities, duties, and responsibilities of the Office of Production Management required to carry out the purchasing functions provided for in said Executive order.

2. The Director of Purchases shall have authority to propose action under section 9 of the Selective Training and Service Act of 1940, whenever in his opinion it shall be necessary or desirable to acquire materials, articles or equipment, by action under said section 9; and all proposals for such action shall be made in the form of a recommendation to the Director of Priorities, who shall proceed thereon in accordance with paragraph 2 of regulation No. 3.

3. To effectuate and carry out the authorities, duties, and responsibilities assigned to him herein, the Director of Purchases is hereby authorized:

(a) To establish such organization as the Director of Purchases may deem necessary to the adequate execution of the functions of the Division of Purchases, including the employment of personnel.

(b) To coordinate the placement of all major defense orders and contracts.

(c) To review for clearance, prior to award, all major proposals for the purchase or construction by the War Department or the Navy Department of materials, articles, or equipment needed for defense. He shall also review for clearance or advice such other important proposals for purchase or construction as the War Department or Navy Department may desire to submit. The term "major proposals for purchase or construction," as used herein, shall mean:

(1) All proposals for purchase in the amount of \$500,000 or more;

(2) All proposals for construction in the amount of \$500,000 or more; and

(3) Such other proposals for purchase or construction as the Director of Purchases may indicate, through the Office of the Secretary of War or the Secretary of the Navy, because they involve unusual procurement problems, or have a substantial impact upon the market, or for other reasons.

(d) To advise with respect to the procurement planning aspects of the plans and schedules of the various departments and agencies of the Government for the purchase of materials, articles, or equipment required for defense.

(e) With respect to materials, articles, and equipment required for defense, at such times and to such extent as he may deem necessary to the effective discharge of his responsibilities—

(1) To review the procurement procedures, methods and policies, and specifications, of the various departments and agencies of the Government;

(2) To inform himself as to (A) the programs of requirements and desired schedules of delivery of the various departments and agencies of the Government, whether or not such programs or schedules are final, (B) existing productive capacity, whether publicly or privately owned or controlled, and (C) such other matters relating to procurement or procurement planning as he may deem appropriate;

(3) To make such recommendations with respect to the foregoing as he may deem appropriate.

4. The Director of Purchases shall exercise the authorities, duties, and responsibilities assigned to him herein subject to the jurisdiction and control of the Director General acting in association with the Associate Director General; and he shall obtain their approval of the creation of the principal subdivisions within the Division of Purchases.

5. The Director of Purchases shall make such regular and special reports of his actions pursuant to this Regulation as may be required by the Office of Production Management.

6. The Director of Purchases shall have authority to designate an Assistant or Deputy Director to serve as Acting Director of Purchases in his absence or inability to act, subject to the approval of the Director General acting in association with the Associate Director General.

WILLIAM S. KNUDSEN,
Director General.

SIDNEY HILLMAN,
Associate Director General.

HENRY L. STIMSON,
Secretary of War.

JAMES V. FORRESTAL,
Acting Secretary of the Navy.

Approved.

JOHN LORD O'BRIAN,
General Counsel.

Attest:

HERBERT EMMERICH,
Secretary.

MARCH 7, 1941.

REGULATION NO. 3

Defining the status of the Division of Priorities in the Office of Production Management and prescribing its duties and functions

Whereas Executive Order No. 8629, dated January 7, 1941, created the Office of Production Management and charged it with the duties, among others, to determine when, to what extent, and in what manner priorities shall be accorded to deliveries of material pursuant to the authority of Section 2 (a) of the Act entitled, "An Act to Expedite National Defense and for other Purposes," approved June 28, 1940, and to perform the functions and exercise the authorities vested in the President by Section 9 of the Selective Training and Service Act of 1940; and

Whereas said Executive Order established within the Office of Production Management a Division of Priorities in charge of a Director appointed by the Office of Production Management with the approval of the President, and a Priorities Board to act as an advisory body on priorities; and

Whereas the Office of Production Management with the approval of the President has appointed Edward R. Stettinius, Jr., as Director of the Division of Priorities; and

Whereas the public interest requires that provision be made to insure the prompt delivery of material essential to the national defense;

Now, therefore, by virtue of the authority vested in the Office of Production Management by said Executive Order, it is hereby ordered that:

1. The Director of the Division of Priorities, who shall be known as the Director of Priorities, shall execute and administer the authorities, duties, and responsibilities of the Office of Production Management pertaining to Section 2 (a) of the Act entitled, "An Act to Expedite National Defense, and for other Purposes," approved June 28, 1940, and otherwise pertaining to priorities, mandatory orders, and allocations.

2. The Director of Priorities shall have authority to propose action under Section 9 of the Selective Training and Service Act of 1940, and all proposals for such action, whether originating with him or with the Directors of other Divisions or with other officers of the Government, shall be submitted by the Director of Priorities, with his recommendation, to the Director General, the Associate Director General, the Secretary of War, and the Secretary of the Navy, constituting the Council of the Office of Production Management, for such directions as they may give.

3. To effectuate and carry out the authorities, duties, and responsibilities assigned to him herein, the Director of Priorities is hereby authorized:

(a) To establish such organization as the Director of Priorities may deem necessary to the adequate execution of the functions of the Priorities Division,

including the employment of personnel and the creation and appointment of priority groups and priority committees for material or groups of material; and to make provision for administrative services to the Priorities Board when it is carrying out its functions under said Executive Order.

(b) To assign or provide for the assignment of preference ratings to all contracts and subcontracts and material directly or indirectly necessary to the defense program; on ultimate military items, the Director of Priorities shall be guided by categories of military preferences, including the modification of existing categories, as set forth from time to time by the Army and Navy Munitions Board.

(c) To issue or provide for the issuance of all preference or priority certificates or orders to contractors, subcontractors, and others supplying material directly or indirectly necessary to the defense program.

(d) To utilize and supervise, in accordance with procedures devised with the concurrence of the Army and Navy Munitions Board, the services of the contracting and procurement officers and inspectors of the War and Navy Departments, in connection with priorities and related matters.

(e) To validate and extend, to such extent as he may define, action with respect to priorities and related matters heretofore taken by the former Administrator of Priorities and Priorities Board, pursuant to authority of Executive Order No. 8572, dated October 21, 1940, and amended by Executive Order No. 8612, dated December 15, 1940, and revoked by Executive Order No. 8629, dated January 7, 1941, or by the Director of Priorities or by the Army and Navy Munitions Board or by contracting and procurement officers and inspectors of the War and Navy Departments.

(f) To issue, modify and amend, with the advice of the Priorities Board and with the approval of the Director General acting in association with the Associate Director General of the Office of Production Management, such rules and regulations as may to the Director of Priorities seem necessary or desirable in the execution of the functions of the Division of Priorities, and subject to all Executive and Administrative Orders of the President and all Regulations of the Office of Production Management.

(g) To establish preferences with respect to indirect defense material, and domestic and foreign material, pursuant to such agreement and cooperation as may be necessary.

(h) To make allocations, establish procedures, adopt devices, measures and plans, and generally to take all lawful steps necessary or appropriate to bring about prompt delivery of direct and indirect defense material, and other domestic and foreign material where deemed important to the defense program.

4. The Director of Priorities shall exercise the authorities, duties and responsibilities assigned to him herein subject to the jurisdiction and control of the Director General acting in association with the Associate Director General; and he shall obtain their approval of the creation of the principal administrative subdivisions and priority groups within the Division of Priorities.

5. The Director of Priorities shall formulate plans, and shall negotiate, and with the approval of the Director General acting in association with the Associate Director General shall establish, procedures to insure the effective coordination of activities of the several departments, agencies and offices of the Government which relate to priorities.

6. The Director of Priorities shall have authority to designate an Assistant or Deputy Director to serve as Acting Director of Priorities in his absence or inability to act, subject to the approval of the Director General acting in association with the Associate Director General.

7. The Director of Priorities shall be entitled, in cooperation with or through the Bureau of Research and Statistics, to obtain from the Departments of War and Navy, information necessary or appropriate to enable him to exercise his authorities, duties, and responsibilities hereunder.

8. The Director of Priorities shall make such regular and special reports of his actions pursuant to this Regulation as may be required by the Office of Production Management.

9. The Priorities Board shall serve as an advisory body to the Director of Priorities and shall render advice to him and make findings and recommendations whenever he deems it necessary or advisable to request it to do so. The Director of Priorities shall consult with and request the advice of the Priorities Board with

respect to all proposals for action under Section 9 of the Selective Training and Service Act of 1940 and with respect to any proposed mandatory order covering an entire industry.

WILLIAM S. KNUDSEN,
Director General.

SIDNEY HILLMAN,
Associate Director General.

HENRY L. STIMSON,
Secretary of War.

JAMES V. FORRESTAL,
Acting Secretary of the Navy.

Approved:

JOHN LORD O'BRIAN,
General Counsel.

Attest:

HERBERT EMMERICH,
Secretary.

Approved: FRANKLIN D. ROOSEVELT,
THE WHITE HOUSE, March 8, 1941.

REGULATION NO. 4

Establishing a Bureau of Research and Statistics in the Office of Production Management and prescribing its duties and functions

By virtue of the authority vested in the Office of Production Management by Executive Order 8629, it is hereby ordered:

1. There shall be in the Office of Production Management a Bureau of Research and Statistics which shall serve as the central research and statistical agency of the Office. The Bureau shall be administered by a Chief appointed by and responsible to the Director General in association with the Associate Director General, and, subject to their supervision, he shall establish such organization and appoint such personnel as may be necessary.

2. There shall be an Advisory Committee to advise the Chief of the Bureau of Research and Statistics on program and policies. The Advisory Committee shall consist of representatives of the operating divisions of the Office of Production Management, to be selected by the directors of the several divisions, and representatives of the War and Navy Departments, the Advisory Commission to the Council of National Defense, and such other defense agencies as the Director General in association with the Associate Director General may determine.

3. The following principles shall govern the allocation of research and statistical responsibilities between the Bureau of Research and Statistics and the operating divisions of the Office of Production Management:

(a) The Bureau of Research and Statistics shall be responsible for the collection and processing of statistics and the conduct of studies necessary to meet the needs of the Office as a whole or of two or more operating divisions. However, the Chief of Research and Statistics may arrange with the director of any interested operating division to have all or part of any such project performed by the appropriate operating division on behalf of the Bureau of Research and Statistics and other interested divisions.

(b) Research and statistical work which is an integral part of the activities of an operating division and which is not required by other divisions may be carried on by the division concerned after clearance with the Chief of the Bureau of Research and Statistics. The Chief of Research and Statistics shall work out with the directors of the various operating divisions the detailed allocation of research and statistical projects.

(c) In order that statistics collected by operating divisions may adequately serve the purposes of other operating divisions and of the Bureau of Research and Statistics, the Chief of Research and Statistics shall arrange for, and shall have authority to set standards to assure, the necessary degree of uniformity and coverage of the data.

4. In accordance with the principles set forth in paragraph 3, the Bureau of Research and Statistics, serving as a central staff agency, shall:

(a) Collect and compile statistics and carry on research to meet the needs of the Office of Production Management and its operating divisions. To avoid duplication, the Bureau shall utilize so far as practicable the services of existing governmental agencies engaged in the collection and analysis of statistics.

(b) Collect and assemble data on requirements and contracts for, and deliveries and inventories of, commodities needed for national defense; and place such data in suitable form for the use of the operating divisions.

(c) Obtain copies of reports, prepared by the War and Navy Departments, procurement agencies of foreign governments, and other public or private agencies, containing data needed by the Office of Production Management.

(d) Serve as a clearing house for statistics and research information available within the Office of Production Management and as the channel for supplying such material to other governmental agencies which have authorized use therefor.

(e) Review and approve all questionnaires and report forms, as defined by Bureau of the Budget Circular No. 360, which are prepared by the operating divisions of the Office of Production Management. No such questionnaire or report form shall be issued until cleared by the Bureau of Research and Statistics with the Bureau of the Budget.

(f) Upon request and in accordance with arrangements made between the Chief of Research and Statistics and the division or agency concerned, render special research and statistical service to operating divisions of the Office of Production Management, to the Advisory Commission to the Council of National Defense, and to other governmental agencies engaged in the defense program.

(g) Serve as the liaison between the Office of Production Management and other statistical agencies of the Government.

(h) Perform such other functions as the Director General in association with the Associate Director General may direct.

5. The Bureau of Research and Statistics shall have full access to all statistics developed and maintained by other units of the Office of Production Management.

WILLIAM S. KNUDSEN,
Director General.

SIDNEY HILLMAN,
Associate Director General.

HENRY L. STIMSON,
Secretary of War.

JAMES V. FORRESTAL,
Acting Secretary of the Navy.

Approved:

JOHN LORD O'BRIAN,
General Counsel.

Attest:

HERBERT EMMERICH,
Secretary.

MARCH 7, 1941.

REGULATION NO. 5

Establishing a labor division in the Office of Production Management and prescribing its duties and functions

Whereas Executive Order No. 8629, dated January 7, 1941, in creating the Office of Production Management provided that in addition to certain specified functions, the Office of Production Management shall "perform such other functions as the President may from time to time assign or delegate to it"; and said Order provided that in addition to the Divisions of Production, Purchases, and Priorities, there shall be "such other operating divisions as the President may from time to time determine"; and

Finding it essential in the interest of expediting the defense program with respect to the national emergency as declared by the President to exist on September 8, 1939, to conduct within the Office of Production Management certain functions relating to labor requirements and relations;

Now, therefore, subject to the approval of the President, it is ordered that—

1. There shall be within the Office of Production Management an operating

division to be known as the Labor Division, at the head of which shall be a Director of the Labor Division appointed by the Office of Production Management with the approval of the President.

2. The Director of the Labor Division shall perform and discharge the following duties and responsibilities, working in close cooperation with, and utilizing to the maximum extent compatible with efficiency, all appropriate departments and agencies of the Federal Government:

- (a) Ascertain labor requirements for national defense;
- (b) Develop programs and coordinate efforts for assuring an adequate and trained labor supply for defense purposes;
- (c) Advise with respect to problems of standards of work and employment in defense industries;
- (d) Assist in the prevention and adjustment of any labor controversies which might retard the defense program; and
- (e) Advise and collaborate with the other divisions of the Office of Production Management on all matters affecting labor.

3. The Director of the Labor Division is authorized to establish such organization for the Division as he may deem necessary to the adequate execution of his functions and responsibilities including the employment of personnel, but he shall obtain the approval of the Director General acting in association with the Associate Director General in the creation of the Principal subdivisions of the Division.

4. The Director of the Labor Division shall exercise the authorities, duties, and responsibilities assigned to him herein subject to the jurisdiction and control of the Director General acting in association with the Associate Director General, and he shall make such regular and special reports of his actions pursuant to this regulation as may be required by the Office of Production Management.

5. The Director of the Labor Division shall have authority to designate an Assistant or Deputy Director to serve as Acting Director of the Labor Division in his absence or inability to act, subject to the approval of the Director General acting in association with the Associate Director General.

WILLIAM S. KNUDSEN,
Director General.

SIDNEY HILLMAN,
Associate Director General.

HENRY L. STIMSON,
Secretary of War.

FRANK KNOX,
Secretary of the Navy.

Approved:

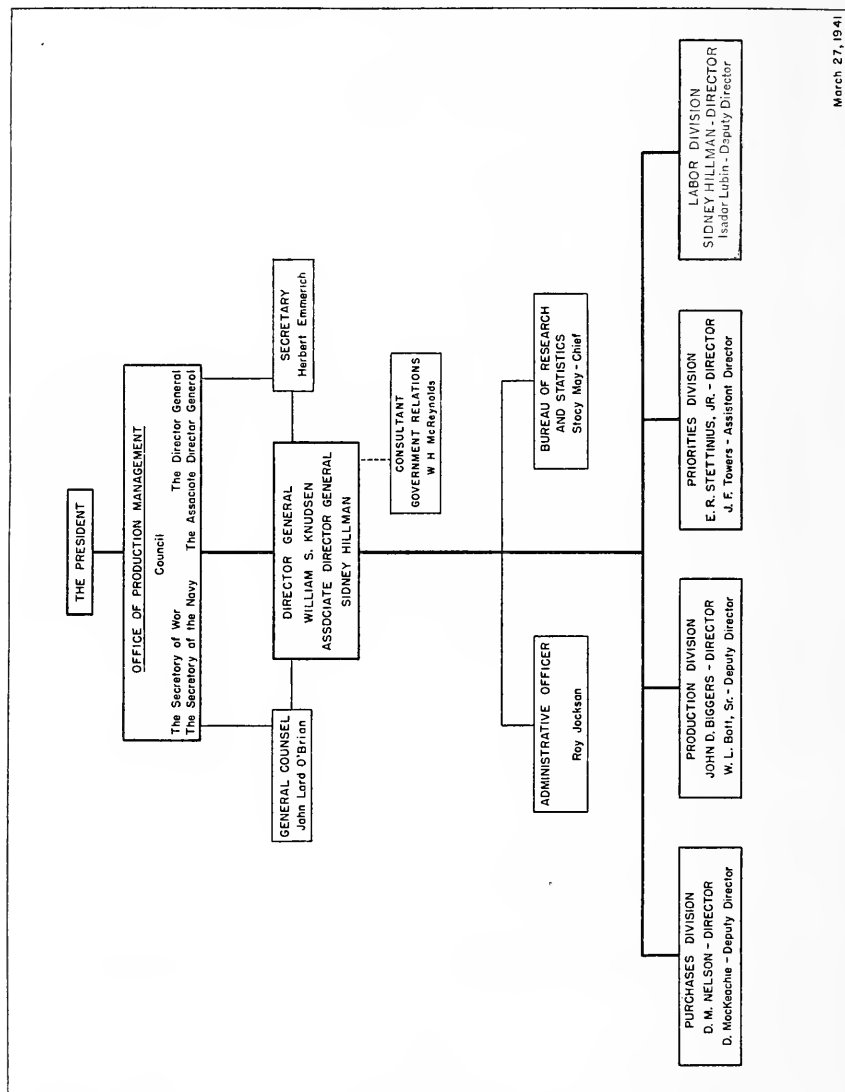
JOHN LORD O'BRIAN,
General Counsel.

Attest:

HERBERT EMMERICH,
Secretary.

Approved: FRANKLIN D. ROOSEVELT,
THE WHITE HOUSE,

March 18, 1941.



The following data appear herewith in connection with the testimony of William S. Knudsen, *supra*, p. 117.

DEFENSE PRODUCTION IN FISCAL YEARS 1941-42 AND NATIONAL INCOME

Funds and authorizations available for the defense and lease-lend program, together with estimates now before Congress call for defense industrial production and other defense activities during the fiscal years 1941 and 1942 totaling \$29,400,000,000. The chief constituents of the program are shown in table 1.

TABLE 1.—*Value of defense industrial production and other defense activities scheduled for fiscal years 1941 and 1942*

Airplanes, parts, and accessories.....	\$5, 100, 000, 000
Naval vessels.....	2, 200, 000, 000
Merchant ships.....	900, 000, 000
Ordnance.....	3, 900, 000, 000
Industrial facilities.....	3, 800, 000, 000
Other industrial production.....	7, 000, 000, 000
Army and Navy pay and subsistence, British food, and other nonindustrial items.....	6, 500, 000, 000
Value of total scheduled defense production and other activities.....	29, 400, 000, 000

This program may be thought of as consisting of three main types of items: (1) Military equipment and matériel—for instance, planes, ships, ordnance, etc.; (2) industrial facilities, (3) pay and subsistence of the Army and Navy and other nonindustrial items. The first of these, military equipment and matériel, including troop housing and personal and quarters equipment, represents the real burden on our industrial machine. As shown in table 2, the amount of this item scheduled for production in 1941 totals \$6,300,000,000 and for 1942, \$12,800,000,000. Industrial facilities are needed as rapidly as they can be made available if the planes, ships, ordnance, etc., are to be provided on scheduled time.

TABLE 2.—*Value of matériel production and activities scheduled for 1941 and 1942 (fiscal years)*

	1941	1942	Total
Military equipment and matériel.....	\$6, 300, 000, 000	\$12, 800, 000, 000	\$19, 100, 000, 000
Industrial facilities.....	800, 000, 000	3, 000, 000, 000	3, 800, 000, 000
Other defense activities.....	2, 700, 000, 000	3, 800, 000, 000	6, 500, 000, 000
Total.....	9, 800, 000, 000	19, 600, 000, 000	29, 400, 000, 000

Whether our defense effort totals \$29,400,000,000 by the end of the fiscal year 1942 will, of course, depend upon whether the production schedules upon which this figure is based can be attained.

On the basis of what seems reasonable to expect in the way of an increase in national income at present prices, defense activities of \$19,600,000,000 in fiscal 1942 would mean a defense effort of somewhat more than one-fifth of our national income.

Table 3 shows how defense cash expenditures, including payments on British contracts, have increased in relation to national income during the past 12 months. It should be kept in mind, however, that cash expenditures are an imperfect measure of actual production for defense.

It will be noted that the program of production and defense activity for fiscal 1942 of \$19,600,000,000 represents industrial schedules. For this reason it includes activities financed by the Reconstruction Finance Corporation and by British contracts as well as activities financed through congressional appropriations. The following figures do not include production and defense activities after fiscal year 1942.

TABLE 3.—*Annual rates of national income and defense disbursements, 1940 and 1941*

	1940			1941, first quarter
	Second quarter	Third quarter	Fourth quarter	
National income (annual rate).....	\$74, 000, 000, 000	\$75, 000, 000, 000	\$78, 000, 000, 000	\$82, 000, 000, 000
Defense disbursements (annual rate).....	2, 600, 000, 000	4, 900, 000, 000	7, 000, 000, 000	10, 500, 000, 000
Ratio, disbursements to income, percent.....	3.5	6.5	8.9	12.8

The following data are included at this point in connection with the testimony of Mr. Sidney Hillman, *supra*, page 119 et seq.

[Excerpt from Mr. Hillman's statement before the Judiciary Committee of the House of Representatives, Feb. 20, 1941]

TABLE B.—*Man-days of idleness during strikes in 11 industries closely related to national defense, compared with man-days worked, 1940*¹

Industry	Minimum number of man-days worked	Man-days idle as a percentage of man-days worked	Number of man-days worked per man-day idle
Aircraft.....	21,624,000	0.17	594
Aluminum.....	6,792,000	.45	222
Automobiles.....	107,424,000	.10	1,031
Blast furnaces, steel works, and rolling mills.....	116,088,000	.12	849
Electrical machinery.....	57,624,000	.68	146
Engine manufacturing.....	12,528,000	.06	1,685
Explosives.....	1,824,000	.16	601
Foundries and machine shops.....	96,624,000	.27	375
Machine tools.....	15,840,000	.07	1,350
Sawmills, logging camps, and millwork.....	² 110,352,000	.39	254
Shipbuilding.....	22,488,000	.21	466

¹ Days work estimated as average employment times 240 days per year.

² With allowance for independent logging camps which are included in the strike data but are excluded from the regularly published employment figures.

Source: U. S. Bureau of Labor Statistics.

*Major issues involved in strikes ending in 1940*¹

Major issues	Strikes, percent of total	Workers involved, percent of total	Man-days idle, percent of total
All issues.....	100.0	100.0	100.0
Wages and hours.....	30.8	41.1	46.3
Closed or union shop.....	11.8	11.1	12.5
Rival union and jurisdictional.....	6.3	4.7	3.1
All others.....	51.1	43.1	38.1

¹ Figures for 1940 strikes are not yet entirely complete. When all data have been received there will probably be a few more strikes in each category. The percentage in each classification, however, will not be substantially different from the above. The final data for the calendar year 1940 will be published in the May issue of the Monthly Labor Review.

U. S. Department of Labor, Bureau of Labor Statistics, Washington. Feb. 28, 1941.

Strikes in defense industries, April 23, 1941

Alabama Drydock & Shipbuilding Corporation, Mobile, Ala.: International Union of Marine and Shipbuilding Workers of America, C. I. O.; building destroyers for the Navy; 3,400 employees; 27,200 man-days idle. Began January 23, ended February 2. Issue: Wages.

Allis-Chalmers Manufacturing Co., Milwaukee, Wis.: United Automobile Workers, C. I. O., company produces turbines for powder plants, wide variety of machine tool items, and special items for the Navy; 7,500 employees; 397,500 man-days idle. Began January 22, ended April 7. Issue: Union relations.

Aluminum Co. of America, Edgewater, N. J.: Aluminum Workers of America, C. I. O., company produces aluminum for aircraft; 2,345 employees; 19,705 man-days idle. Began March 12, ended March 22. Issue: Sunday work, wages, and union relations.

Aluminum Co. of America, New Kensington, Pa.: Aluminum Workers of America, C. I. O., company produces aluminum for aircraft; 7,000 employees; 28,160 man-days idle. Began November 22, ended November 28. Issue: Union relations.

American Car & Foundry Co., Berwick, Pa.: Steel Workers Organizing Committee, C. I. O., tanks; 1,250 employees; 1,250 man-days idle. Began December 30, ended December 31 (8 hours only). Issue: Grievances.

American Car & Foundry Co., Buffalo, N. Y.: Steel Workers Organizing Committee, C. I. O., and Federal Labor Union, A. F. of L., ammunition components for the Army; 1,400 employees. Began April 15; pending, 1,400 employees.¹ Began April 2, ended April 3.¹ Issue: Union recognition and jurisdictional.

American Potash & Chemical Co., Trona, Calif.: Mine, Mill and Smelter Workers, C. I. O., chemicals for explosives, 1,000 employees.¹ Began March 14; pending.¹ Issue: Wages, union relations, and other terms of new agreement.

American Zinc Co., East St. Louis, Ill.: Mine, Mill and Smelters Workers, C. I. O.; bricklayers and other building trades, A. F. L.; construction of new smelter; 28 employees; 1,120 man-days idle. Began January 13, ended March 7. Issue: Jurisdictional.

Babcock & Wilcox, Bayonne, N. J.: United Electrical Radion and Machine Workers of America, C. I. O.; boilers for the Navy; 477 employees; 8,109 man-days idle. Began January 3, ended January 27. Issue: Wages and other terms of new agreement.

Bethlehem Shipbuilding Co., Sparrows Point, Md.: Steel Workers Organizing Committee, C. I. O.; boats for United States Maritime Commission; 3,000 employees; 20,100 man-days idle. Began September 20, ended October 7. Issue: Wages.

Bethlehem Steel Co., Lackawanna, N. Y.: Steel Workers Organizing Committee, C. I. O.; steel for defense contracts; 12,000 employees; 18,000 man-days idle. Began February 27, ended February 28. Issue: Union recognition and grievances.

Bethlehem Steel Co., Johnstown, Pa.: Steel Workers Organizing Committee, C. I. O.; steel for defense contracts; 800 employees; 3,200 man-days idle. Began January 3, ended January 8. Issue: Grievances; 1,064 employees; 8,512 man-days idle. Began January 25, ended January 30. Issue: Grievances; 11,000 employees.¹ Began March 28, ended March 30.¹ Issue: Union relations under N. L. R. B. order.

Bethlehem Steel Fabricating Plant, Los Angeles, Calif.: Steel Workers Organizing Committee, C. I. O.; fabricating steel for aviation plants on west coast; 135 employees; 945 man-days idle. Began March 10, ended March 18. Issue: Wages and union recognition.

Birdsboro Steel Foundry & Machine Co., Reading, Pa.: Steel Workers Organizing Committee, C. I. O.; basic steel for defense contractors; 1,100 employees.¹ Began April 15, ended April 21.¹ Issue: Union recognition and wages. (Certified to N. D. M. B.)

California Metal Trades Association, San Francisco, Calif.: International Association of Machinists, A. F. L. shops with Navy orders for parts for ships; 1,500 employees.¹ Began April 7; pending.¹ Issue: Wages. (Certified to N. D. M. B.)

Chevrolet Motor Co., Oakland, Calif.: United Automobile Workers of America, C. I. O. contractor for 1½-ton tactical trucks; 400 employees.¹ Began March 22, ended April 4.¹ Issue: Grievances.

Condenser Corporation of America (Cornell-Dubilier Corporation, South Plainfield, N. J.: International Brotherhood of Electrical Workers, A. F. L.; condensers for Signal Corps contractors; 2,100 employees; 33,600 man-days idle. Began March 10, ended April 3. Issue: Union recognition.

Corbin Screw Corporation, New Britain, Conn.: United Electrical Radio and Machine Workers, C. I. O.; ammunition components and parts for airplane engines; 200 employees.¹ Began April 17; pending.¹ Issue: Wages.

Cowles Tool Co., Cleveland, Ohio; United Automobile Workers, C. I. O.; tools for defense contractors; 120 employees; 4,680 man-days idle. Began February 27, ended April 22. Issue: Wages and other terms of new agreement.

Crucible Steel Corporation: Steel Workers Organizing Committee, C. I. O.; steel for defense contracts; Syracuse, N. Y., 2,021 employees; 6,063 man-days idle. Began November 19, ended November 22. Midland, Pa., 3,000 employees; 11,200 man-days idle. Began November 13, ended November 17. Harrison, N. J., 925 employees; 4,625 man-days idle. Began October 3, ended October 8. Pittsburgh, Pa., 766 employees; 2,298 man-days idle. Began March 12, ended March 15. Issue: Grievances.

Curtiss-Wright Corporation, Neville Island, Pa. (Pittsburgh): Steel Workers Organizing Committee, C. I. O.; propellers for aircraft; 900 employees; 900 man-days idle. Began March 4, ended March 4. Issue: Union relations.

Camp Dix, Camp Dix, N. J.: Laborers' union and carpenters, A. F. L.; cantonment construction; 600 employees; 1,200 man-days idle. Began November 8, ended November 11. Issue: Jurisdictional.

¹ Figures and dates are from records of Office of Production Management. These could not be checked by the Bureau of Labor Statistics because adequate data are not yet available.

Eastern Malleable Iron Co., Wilmington, Del.: United Automobile Workers, C. I. O.; subcontracts for trench mortars; 580 employees; 24,940 man-days idle. Began January 24, ended March 20. Issue: Union relations and wages.

Eaton Manufacturing Co., Saginaw, Mich.: United Automobile Workers, C. I. O. and U. A. W., A. F. L.: Parts for aircraft manufacture; 315 employees; 7,615 man-days. Short stoppages on November 14 and 16. Issue: Jurisdictional.

Eaton Manufacturing Co., Saginaw, Mich.: United Automobile Workers, C. I. O.; Battle Creek Mich.; Marshall, Mich.; Cleveland, Ohio; 3,113 employees; 9,339 man-days idle. Began January 13, ended January 15. Issue: Union relations.

Foster-Wheeler Corporation, Carteret, N. J.: United Electrical Radio and Machine Workers of America, C. I. O.; Navy boilers for ships; 800 employees; 5,600 man-days idle. Began February 12, ended February 20. Issue: Wages and holidays.

Fairmont Aluminum Co., Fairmont, W. Va.: Aluminum Workers of America, C. I. O.; aluminum; 191 employees; 955 man-days idle. Began March 10, ended March 16. Issue: Vacations and grievances.

Ford Motor Co., Dearborn, Mich.: United Automobile Workers of America, C. I. O.; bantam cars and small trucks; 85,000 employees.¹ Began April 1, ended April 11.¹ Issue: Union recognition.

Hanson-Whitney Corporation, Hartford, Conn.: United Electrical Radio and Machine Workers, C. I. O.; machine tools for defense contractors; 325 employees.¹ Began April 16, pending.¹ Issue: Grievances.

Harvill Diecasting Corporation, Los Angeles, Calif.: National Association of Diecasting Workers, C. I. O.; castings for west coast aircraft plants; 425 employees; 2,975 man-days idle. Began March 13, ended March 23. Issue: Wages.

Indiana Steel Products Co., Valparaiso, Ind.: Blacksmiths, A. F. L.; Steel Workers Organizing Committee, C. I. O.; Machinists, A. F. L.; magnets used in Army contracts for telephones, switchboards, and head sets; 206 employees; 1,030 man-days idle. Began March 16, ended March 23. Issue: Jurisdictional.

Ingalls Shipbuilding Co., Pascagoula, Miss.: Boilermakers and Machinists, A. F. L.; ships for the Navy; 84 employees; 672 man-days idle. Began January 15, ended January 24. Issue: Wages.

Ingalls Shipbuilding Corporation, Pascagoula, Miss.: Metal Trades, A. F. L. (Boilermakers versus Iron Workers); ships for the Navy; 100 employees; 505 man-days idle. Began March 10, ended March 14. Issue: Jurisdictional.

International Harvester Co.—Farm Equipment Workers Organizing Committee, C. I. O.: Rock Falls, Ill., 250 employees; began January 21, ended March 31; issue, union recognition. Chicago, Ill., tractor plant, 6,500 employees; began January 29, ended March 31; issue, union recognition. Chicago, Ill., McCormick Works, 6,000 employees; began February 28, ended March 31; issue, union recognition. Richmond, Ind., 1,500 employees; began February 17, ended March 31; issue, union recognition. Ammunition components and tractors; 453,650 man-days idle.

Jones & Laughlin, Aliquippa, Pa.: Steel Workers Organizing Committee, C. I. O.; steel for defense contractors; 565 employees; 4,741 man-days idle. Began October 15, ended October 30. Issue: Union relations.

Kellogg Switchboard & Supply Co., Chicago, Ill.: International Association of Machinists, A. F. L.; International Brotherhood of Electrical Workers, A. F. L.; switchboards and other electrical equipment for Army and Navy; 400 employees; 18,800 man-days idle. Began June 26, ended August 31. Issue: Union recognition and unfair labor practices.

King Powder Co., Kings Mills, Ohio, and Kico, Ky.: United Mine Workers, C. I. O.; powder plants; 124 employees; 2,232 man-days idle. Began September 18, ended October 10. Issue: Wages and union recognition.

Lukens Steel Co., Coatesville, Pa.: Steel Workers Organizing Committee, C. I. O.; basic steel for defense contractors; 130 employees.¹ Began April 8, ended April 8.¹ Issue: Wages and grievances.

Michigan Forging Co., Detroit, Mich.: United Automobile Workers of America, C. I. O.; parts for machine guns; 100 employees.¹ Began April 3, ended April 7.¹ Issue: Wages and union recognition.

¹ Figures and dates are from records of Office of Production Management. These could not be checked by the Bureau of Labor Statistics because adequate data are not yet available.

Motor Wheel Corporation, Lansing, Mich.: United Automobile Workers, A. F. L.; manufacture of shells, wheels for airplanes; 2,500 employees; 22,500 man-days idle. Began February 13, ended February 25. Issue: Union relations and wages.

Phelps-Dodge Corporation, Elizabeth, N. J.: United Electrical Radio and Machine Workers of America, C. I. O.; small direct defense contracts; copper for defense contracts; 1,550 employees; 3,100 man-days idle; began January 31, ended February 1; issue, union recognition, wages, and other terms of new agreement; 1,600 employees;¹ began April 7, pending¹ (certified to N. D. M. B.).

Ray Day Piston Corporation, Detroit, Mich.: United Automobile Workers, C. I. O.; aluminum castings and pistons for aircraft; 123 employees; 2,091 man-days idle. Began March 5, ended March 27. Issue: Union recognition.

Rifle Range and Training Ground, Holly Ridge, N. C.: Building Trades, A. F. L.; Army training grounds; 4,300 employees; 8,600 man-days idle. Began March 3, ended March 4. Issue: Union relations.

John A. Roebling's Sons Co., Trenton, N. J.: Steel Workers Organizing Committee, C. I. O.; aircraft cables and contracts for Signal Corps; 4,000 employees.¹ Began April 15, pending.¹ Issue: Union recognition and work loads.

Shipowners Association of the Pacific, San Francisco: C. I. O. and A. F. L. Maritime Unions; shipment of defense materials; 1,330 employees; 61,510 man-days idle. Began October 5, ended December 4. Issue: Wages and working conditions.

Standard Tool Co., Cleveland, Ohio: United Automobile Workers, C. I. O.; machine tools for firms holding defense contracts; 600 employees; 33,000 man-days idle. Began January 27, ended April 12. Issue: Wages and other terms of new agreement.

Sullivan Machine Co., Michigan City, Ind.: United Automobile Workers, C. I. O.; machine tools for defense contractors; 300 employees.¹ Began March 26, ended April 17.¹ Issue: Wages and other terms of new agreement.

Todd Drydocks, Galveston, Tex.: Carpenters, A. F. L.; shipbuilding and repairing facilities; 2,084 employees; 8,481 man-days idle. Began March 17, ended March 23. Issue: Grievances.

Universal Cyclops Steel Corporation, Bridgeville, Pa.: Steel Workers Organizing Committee, C. I. O.; special steel for fuses and airplane propellers; 1,382 employees; 4,146 man-days idle; began February 1, ended February 5. Issue: Grievances and wages; 1,381 employees; 35,932 man-days idle; began February 21, ended March 29. Issue: Grievances and wages.

Vanadium Corporation of America, Niagara Falls, N. Y.: United Mine Workers, C. I. O.; alloy for special steel used in defense products; 386 employees; 3,860 man-days idle. Began February 10, ended February 21. Issue: Wages and union relations.

Vanadium Corporation of America, Bridgeville, Pa.: Local Industrial Union, C. I. O.; alloy for special steel used in defense products; 274 employees; 5,480 man-days idle. Began February 10, ended March 31. Issue: Grievances (union agreement).

Vultee Aircraft, Inc., Downey, Calif.: United Automobile Workers, C. I. O. aircraft for Army Air Corps; 5,000 employees; 35,000 man-days idle. Began November 15, ended November 25. Issue: Wages.

Wright Field, Dayton, Ohio: Building Trades, A. F. L.; Electricians, C. I. O.; construction of a wind tunnel; 400 employees; 800 man-days idle. Began January 29, ended January 30. Issue: Jurisdictional; 400 employees; 5,600 man-days idle. Began March 4, ended March 21. Issue: Jurisdictional.

Youngstown Sheet & Tube Co., Youngstown, Ohio: Steel Workers Organizing Committee, C. I. O.; basic steel for defense materials; 900 employees; 3,600 man-days idle. Began February 11, ended February 15. Issue: Grievances.

Bethlehem Steel Co., Bethlehem, Pa.: Steel Workers Organizing Committee, C. I. O.; basic steel for defense contractors; 10,000 employees; 33,000 man-days idle. Began March 24, ended March 27. Issue: Union relations under N. L. R. B. order.

¹ Figures and dates are from records of Office of Production Management. These could not be checked by the Bureau of Labor Statistics because adequate data are not yet available.

Less-important strikes in defense industries, April 23, 1941

The following strikes are carried on a secondary list for one of the following reasons: (1) Alternative sources of supply readily available; (2) sufficient inventories readily available; (3) no delay in final delivery date.

Aluminum Ore Co., East St. Louis, Ill.: Federal Labor Union, A. F. of L.; bauxite for aluminum; 1,468 employees; 38,168 man-days idle. Began October 24, ended November 30. Issue: Wages.

American Steel & Wire Co., Donora, Pa.: Steel Workers Organizing Committee, C. I. O.; manufacturers of gun shells; 950 employees; 1,425 man-days idle. Began February 19, ended February 20. Issue: Wage adjustments.

Arcadia Knitting Mills, Allentown, Pa.: Textile Workers Union of America, C. I. O.; mosquito netting for the Army; 200 employees.¹ Began April 4, pending.¹ (Certified to N. D. M. B.) Issue: Union recognition.

B. & H. Aircraft, Long Island City, N. Y.: United Automobile Workers, C. I. O.; parts for aircraft manufacturers; 120 employees; 840 man-days idle. Began February 19, ended February 27. Issue: Union recognition.

Boommen & Rrafters, Olympia, Wash.: International Woodworkers of America, C. I. O.; lumber for defense contractors; 2,500 employees; 29,760 man-days idle. Began September 30, ended October 24. Issue: Wages.

J. G. Brill Co., Philadelphia, Pa.: Steel Workers Organizing Committee, C. I. O.; prime contractor for packhowitzer carriages; 1,374 employees; 24,732 man-days idle. Began March 10, ended April 2. Issue: Wages and other terms of new agreement.

Century Electric Co., St. Louis, Mo.: United Electrical Radio & Machine Workers of America, C. I. O.; manufacturers of generators; 1,269 employees; 97,188 man-days idle. Began June 19, ended October 25. Issue: Wages and other terms of new agreement.

Clark Equipment Co., Jackson, Mich.: United Automobile Workers, C. I. O.; axle housings for Army trucks; 848 employees; 4,240 man-days idle. Began January 18, ended January 24. Issue: Wages and other terms of new agreement.

Combustion Engineering, Chattanooga, Tenn.: Steel Workers Organizing Committee, C. I. O.; essential chemicals for explosives; 475 employees; 5,225 man-days idle. Began February 21, ended March 6. Issue: Union recognition, wages, and other terms of new agreement.

Consolidated Steel Co., Orange, Tex.: Laborers Union, A. F. L.; steel for Navy boats; 265 employees; 1,325 man-days idle. Began March 1, ended March 7. Issue: Wages and union status.

Continental Steel Co., Kokomo, Ind.: Steel Workers Organizing Committee, C. I. O.; basic steel for Army and Navy; 500 employees; 5,000 man-days idle. Began January 24, ended February 6. Issue: Wages.

Curtiss Manufacturing Co., St. Louis, Mo.: Steel Workers Organizing Committee, C. I. O.; Compressors for the Air Corps; 350 employees.¹ Began April 7, ended pending.¹ Issue: Wages and other terms of new agreement.

Dahlstrom Metallic Door Co., Jamestown, N. Y.: United Electrical Radio & Machine Workers of America, C. I. O.; parts for airplane contractors; 369 employees; 8,856 man-days idle. Began July 15, ended August 15. Issue: Wages and other terms of new agreement.

Farnsworth Television & Radio Corporation, Marion, Ind.: International Brotherhood of Electrical Workers, A. F. L.; Signal Corps contracts; 610 employees; 3,050 man-days idle. Began February 17, ended February 22. Issue: Union status and wages.

Federal Motor Truck Co., Detroit, Mich.: United Automobile Workers, C. I. O.; tractor trucks for Army; 387 employees; 7,315 man-days idle. Began March 7, ended March 30. Issue: Union status.

Harris-Seybold-Potter Co., Cleveland, Ohio: United Electrical Radio & Machine Workers of America, C. I. O.; machine tools for Army and defense contractors; 350 employees; 1,050 man-days idle. Began April 8, ended April 10. Issue: Wages.

Hertner Electric Co., Cleveland, Ohio: United Electrical Radio & Machine Workers of America, C. I. O.; generators for the Navy; 81 employees; 1,944 man-days idle. Began February 10, ended March 13. Issue: Wages and other terms of union agreement.

International Harvester Co., Fort Wayne, Ind.: United Automobile Workers, C. I. O.; some trucks and experimental work; 2,800 employees; 25,600 man-days idle. Began December 31, ended January 9. Issue: Wages and other terms of union agreement.

¹ Figures and dates are from records of Office of Production Management. These could not be checked by Bureau of Labor Statistics because adequate data are not yet available.

Kawneer Manufacturing Co., Niles, Mich.: United Automobile Workers, A. F. L.; parts for aircraft companies; 530 employees; 29,720 man-days idle. Began July 15, ended September 28. Issue: Wages, union recognition, and other terms of new agreement.

Lacy Manufacturing Corporation, Los Angeles, Calif.: Boilermakers, A. F. L.—Steel Workers Organizing Committee, C. I. O.; structural work on runways for shipbuilding company; 77 employees; 2,002 man-days idle. Began November 18, ended December 24. Issue: Union recognition jurisdictional.

Lumber companies, Oregon and Washington—various places: Lumber and Sawmill Workers, A. F. L.; some lumber for cantonments; 12,000 employees; 161,659 man-days idle. Began October 1, ended December 16 (various dates). Issue: Wages.

McKay Company, York Pa.: Steel Workers Organizing Committee, C. I. O.; subcontracts for Rock Island Arsenal; 450 employees.¹ Began April 14, ended, pending.¹ Issue: Wages and other terms of new agreement.

Mesta Machine Co., Pittsburgh, Pa.: Building Trades, A. F. L.; plant addition to house gun forging machinery; 20 employees; 260 man-days idle. Began January 23, ended February 10. Issue: Union recognition.

Midland Steel Co., Detroit, Mich.: United Automobile Workers, C. I. O.; parts for Army trucks; 1,700 employees; 25,500 man-days idle. Began March 10, ended March 28. Issue: Wages.

Monsanto Chemical Co., Monsanto, Ill.; Chemical Workers, A. F. L.; chemicals and acids for defense industries; 900 employees.¹ Began April 16, ended pending.¹ Issue: Union relations and wages.

Mountain St. Steel Foundry, Parkersburg, W. Va.: Steel Workers Organizing Committee, C. I. O.; contracts with Rock Island Arsenal; 210 employees; 1,050 man-days idle. Began January 28, ended February 3. Issue: Union recognition.

National Supply Co., Philadelphia, Pa.: International Association of Machinists, A. F. L.; engines for small Navy boats; 235 employees; 2,115 man-days idle. Began February 18, ended February 28. Issue: Union recognition and wages.

Powell Valve Company, Cincinnati, Ohio: Steel Workers Organizing Committee, C. I. O.; Navy defense materials; 964 employees; 5,784 man-days idle. Began February 11, ended February 20. Issue: Wages, union status, and other terms of new agreement.

Sklar Manufacturing Co., Long Island City, N. Y.: United Electrical Radio & Machine Workers of America, C. I. O.; surgical instruments and supplies for Surgeon-General; 400 employees.¹ Began April 4, pending¹ (certified to N. D. M. B.). Issue: Union recognition, wages, grievances.

Snoqualmie Falls Timber Co., Snoqualmie, Wash.: Lumber and Sawmill Workers, A. F. L.; lumber for defense contracts; 894 employees; 105,492 man-days idle. Began October 28, ended April 14. Issue: Union status, wages.

Truck drivers, New York City: Teamsters, A. F. L.; contracts for handling defense materials; 7,000 employees; 22,000 man-days idle. Began October 8, ended October 14. Issue: Vacations.

Truck drivers, Newark, N. J.: Teamsters, A. F. L.; contracts for handling defense materials; 1,500 employees; 22,900 man-days idle. Began October 1, ended October 20. Issue: Wages.

Tugboat operators, Grays Harbor, Wash.: Masters, Mates, and Pilots, A. F. L.—Inland Boatmen's Union, C. I. O.; shipments of lumber; 40 employees; 680 man-days idle. Began October 17, ended November 8. Issue: Wages and other terms of new agreement.

Walker Turner Co., Plainfield, N. J.: United Electrical Radio and Machine Workers of America, C. I. O.; tools for aircraft, British orders; 175 employees; 4,200 man-days idle. Began October 23, ended November 26. Issue: Wages.

Walworth Co., Boston, Mass.: Steel Workers Organizing Committee, C. I. O.; Navy contracts for pipe fitting; 798 employees; 3,192 man-days idle. Began March 24, ended March 27. Issue: Wages.

Watertown Arsenal, Watertown, Mass.: A. F. L. Building Trades; construction work; 12 employees; 60 man-days idle. Began March 3, ended March 10. Issue: Jurisdictional.

S. S. White Dental Co., Staten Island, N. Y.: Federal Labor Union, A. F. L.; equipment for the Army; 565 employees; 6,420 man-days idle. Began March 3, ended March 18. Issue: Wages.

Wire & Cable Companies, New York, N. Y.: International Brotherhood of Electrical Workers, A. F. L.; Signal Corps contracts; 860 employees; 61,765 man-days idle. Began August 3, ended September 21 (3 companies); began August 3, ended February 3 (2 companies). Issue: Wages and union status.

¹ Figures and dates are from records of Office of Production Management. These could not be checked by Bureau of Labor Statistics because adequate data are not yet available.

APRIL 2, 1941.

OFFICE OF PRODUCTION MANAGEMENT,
THE HONORABLE THE SECRETARY OF THE NAVY,
THE UNITED STATES MARITIME COMMISSION.

GENTLEMEN: The conference of representatives of the shipbuilders and of labor on the Pacific coast which convened at San Francisco, Calif., under the auspices of the Shipbuilding Stabilization Committee of the National Defense Advisory Commission on February 3, 1941, has completed its conferences and in accordance with the request of the Shipbuilding Stabilization Committee dated March 3, 1941, has reached a tentative agreement as hereinafter set forth.

This agreement is conditioned upon ratification thereof by the respective labor organizations on the Pacific coast and their affiliates, and upon its approval by the Office of Production Management.

The conference has recessed for a period of 2 weeks for the purpose of submitting the matters and things tentatively agreed upon to the various labor organizations and their affiliates. The conference will reconvene on a date to be later announced. If, during the period of the recess, any existing contracts between employers and employees on the Pacific coast shall expire, these shall be deemed to be in the process of negotiation and the rates and other provisions herein contained, if ratified, shall be retroactive to the date of the expiration of such respective agreements.

The tentative agreement to be submitted to the various labor organizations on the Pacific coast and to the Office of Production Management is as follows:

PACIFIC COAST ZONE STANDARDS

A. *Basic wage rate of standard skilled mechanics.*—The basic wage rate of all skilled mechanics on the Pacific coast engaged in the construction of new vessels in the defense program during the period of national emergency as proclaimed by the President of the United States shall be \$1.12 per hour: *Provided, however,* That this shall not operate to reduce the wages of any employee who is now, or who has within 6 months been, employed by any Pacific coast shipbuilding firm: *And provided further,* That any employee who is transferred from ship repair to new ship construction by any Pacific coast employer shall receive not less than the wages now being paid by his employer to other employees in the same classification in new ship construction. The wage scale so established is to be considered as a minimum scale and shall not prevent the payment of higher wages to premium men.

B. *Overtime provision.*—Forty hours shall constitute a workweek, 8 hours per day, 5 days per week, Monday to Friday, inclusive, between the hours of 8 a. m. and 5 p. m., unless local conditions require the establishment of other hours, which may be done by mutual consent of employers and employees. Overtime at the rate of one and a half times the established hourly rate shall be paid for all work performed in excess of 8 hours per day and 40 hours per week. Since this agreement is based on the intent of 6-day-per-week operation, all work performed on Saturdays shall be paid for at one and one-half times the established hourly rate. Overtime at double the established rate shall be paid for all work performed on Sundays and holidays. These provisions relative to overtime payment and for Saturday work shall be effective only during the period of the national emergency: *Provided, however,* That this establishment of this emergency rate shall not be used as a subterfuge to defeat the double-time provisions for Saturday work which would be in effect were it not for the national emergency.

The provision for time and one-half for overtime and on Saturdays established for the duration of the national emergency shall automatically terminate whenever the President of the United States shall proclaim that such national emergency no longer exists; thereafter, all overtime shall be computed on a double-time basis.

C. *Shift premiums.*—Shift work will be permitted in all classifications without restrictions on the following basis:

(a) The regular starting time of the day shift shall be 8 a. m., except that where, as to any locality or as to any plant of any employer, existing traffic conditions render it desirable to start the day shift at an earlier hour, such starting time may, with the agreement of the employer and employees, be made earlier, but in no event earlier than 7 a. m.

(b) The regularly established starting time of the day shift shall be recognized as the beginning of the 24-hour workday period.

(c) First or regular daylight shift: An 8½-hour period less 30 minutes for meals on the employee's time. Pay for a full-shift period shall be a sum equivalent to eight times the regular hourly rate with no premium.

Second shift: An 8-hour period less 30 minutes for meals on employee's time. Pay for a full second shift period shall be a sum equivalent to eight times the regular hourly rate plus 10 percent.

Third shift: A 7½-hour period less 30 minutes for meals on employee's time. Pay for a full third shift period shall be a sum equivalent to 8 times the regular hourly rate plus 15 percent.

(d) For work on any shift less than the full shift period, pay shall be the corresponding proportionate part of the pay for the full shift period, provided such amount be not less than the minimum pay otherwise provided for in the supplementary agreements.

D. *No strike or lock-out clause.*—There shall be no lock-outs on the part of the employer nor suspension of work on the part of the employees. This agreement is a guaranty that there will be neither strikes nor lock-outs and that all disputes will be settled by arbitration as hereinafter provided.

E. *Provision against limitation on production.*—There shall be no limit on or curtailment of production.

F. *Grievance machinery and arbitration.*—All grievances or complaints shall be promptly settled between representatives of the employer and employees. Where necessary, the services of the United States Conciliation Service, Department of Labor, shall be speedily secured. Should no agreement be reached, the dispute shall be submitted to arbitration. Definite arbitration machinery shall be established by supplemental agreements. The decision of the arbiters shall be within the scope and terms of the agreement, shall not change any of its terms, and shall be final and binding on the parties. The arbiters shall determine whether or not the decision is retroactive and the effective date thereof.

G. *Duration of agreement.*—All provisions of this agreement shall continue in force and effect during the period of the national emergency, as proclaimed by the President of the United States, and/or the period of 2 years, whichever is the longer, and shall continue in force thereafter from year to year unless either party shall desire a change and shall give the other party notice in writing of the proposed changes at least 30 days prior to the expiration of any year: *Provided, however,* That on demand of labor at the end of the first year's operations under this agreement, and on demand of either party, every 6 months thereafter, the wage scales herein agreed to shall be reviewed by the parties. If the cost of living, as shown in the Index Numbers of Costs of Goods Purchased by Wage Earners and Salaried Workers in Large Cities, published by the United States Bureau of Labor Statistics, United States Department of Labor, shall have changed at the time of the review from the cost of living at the time of the making of this agreement by 5 percent or more, the wage scales shall be correspondingly adjusted.

In the event the necessary data are not obtainable at the date of review, it may be secured at a later date and the wage adjustment shall be made effective retroactively to the date of review.

H. *Apprentice training program.*—In order that an adequate supply of competent skilled craftsmen shall be available at all times, it is agreed between the parties hereto that an apprenticeship training program may be established by the employer, which program shall be mutually acceptable to the parties hereto. Nothing contained herein shall conflict with Federal or State apprenticeship laws.

Respectfully submitted.

PACIFIC COAST SHIPBUILDING STABILIZATION CONFERENCE,
By _____, _____, *Chairman.*

BUILDING AND CONSTRUCTION TRADES DEPARTMENT,
AMERICAN FEDERATION OF LABOR,
Washington, D. C., March 31, 1941.

To Secretaries of All Building and Construction Trades Councils Affiliated With the Building and Construction Trades Department of the American Federation of Labor:

DEAR SIRs and BROTHERS: A special meeting of the executive council of the building and construction trades department was held in Washington, D. C., on

Saturday, March 29, and in accordance with their instructions we are enclosing copy of two resolutions which were unanimously adopted. These resolutions were approved at a meeting of the general presidents representing the national and international unions, which compose the building and construction trades department.

This department strongly urges your immediate and complete compliance with the action as outlined in the resolutions in order that the United States Government may have your complete cooperation in this time of grave crisis.

The successful preparation of this country for its national defense requires the full and complete support of all labor.

Fraternally yours,

JOHN P. COYNE, *President.*

HERBERT RIVERS, *Secretary-Treasurer.*

The following figures on the cost of acquisition of the land for Jefferson Proving Ground are included at this point in connection with the testimony of Under Secretary of War Patterson, *supra*, page 56.

PROJECT: JEFFERSON PROVING GROUND, INDIANA

- I. General information:
 - A. Date of directive, November 29, 1940.
 - B. Appropriation Act, No. 99.
 - C. Allotment, \$3,300,000.
 - D. Acreage, 50,000 acres.
 1. Total tracts, 616.
 - E. Location—Ripley and Jefferson Counties, Ind.
- II. Present status:
 - A. Lands being acquired by purchase:
 1. Options submitted, 616.
 2. Options accepted, 616:
 - (a) Acreage accepted, 48,402.16.
 - (b) Tracts accepted, 590.
 3. Moneys obligated for purchase, \$2,945,677.10.
 - B. Lands being acquired by condemnation:
 1. Acreage condemned or to be condemned, 4,502.42 acres.
 - (a) Tracts condemned or to be condemned, 26.
 2. Estimated compensation, \$276,354.
 - C. Total moneys obligated for purchase and condemnation, \$3,222,011.10.
 1. Total acreage purchased and condemned, 52,904.58.
 - D. Comparative costs:
 1. Average cost per acre of land being acquired, \$60.85.
 2. Average cost per acre of land acquired previously in nearby vicinity.
 - (a) Jeffersonville Quartermaster Depot, \$910.
- III. Real estate agent:
 - A. Agent: Paul L. McCord, Indianapolis, Ind.
 - B. Title or abstract company: Union Title Co., Indianapolis.
 - C. Terms of contract:
 1. Date, November 9, 1940.
 2. Period of performance, 45 days.
 3. Rate and payment of commission, 6½, gross sales price to be paid by vendor.
 4. Evidence of title: To be procured by vendor.
 - D. Status of acquisition as of February 7, 1940:
 1. Number of options submitted, 592.
 2. Number of options accepted, 340.
 3. Number of options closed, None.
 - E. Findings of committee: Commission excessive and should be reduced; fee to title company be limited to \$50. The disturbance factor included, average 7 percent, was approved.

F. Action taken by Real Estate Branch:

1. Contract amended February 21, 1941, reducing commission to 3½ percent, and fees to title company reduced to \$50 per acquisition.
2. Estimated saving to Government, \$112,720.

Summary data re real-estate agents

Project (name and location)	Total acreage	Total tracts	Allotment	Present total estimated cost	Real-estate agents	Commission	Revised commission
Jefferson Proving Ground, Ripley and Jefferson Counties, Ind.	50,000	516	\$3,300,000	\$3,222,011.10	Paul L. McCord	Percent 6½	Percent 3½

The following data appears herewith in connection with the testimony of Under Secretary of War Patterson *supra*, p. 63.

MAY 28, 1941.

Memorandum for: G-4 Section, General Staff.

(Attention: Lt. Col. A. R. Wilson, G. S.)

Subject: Cost of raw aluminum.

1. Reference memorandum your office dated May 15, 1941, to the Chief of Air Corps, above subject, advise that the estimated costs of raw aluminum used in typical combat type airplanes are as follows:

Pursuit P-40	\$4,612.08
Attack (light bomber) A-20	10,355.08
Medium bomber B-26	13,905.53
Heavy bomber B-17E	20,369.69

(Signed) H. H. ARNOLD,
Major General, Air Corps,
Chief of the Air Corps.

The following lists showing the allocation of Engineer officers to various divisions is included in connection with the testimony of Col. Chamberlin, *supra*, p. 253.

JUNE 12, 1941.

Memorandum.

The approximate number of Corps of Engineers Reserve officers who have been transferred or detailed to other branches for extended active duty since about August 1, 1940, is shown below:

The Adjutant's General Department	1
Office, Assistant Secretary of War	23
General Staff, Washington, D. C.	8
Quartermaster Corps	278
Ordnance	106
Air Corps	125
Signal Corps	25
Infantry	1
Chemical Warfare Service	2
Field Artillery	1
Cavalry	1
Coast Artillery Corps	1
Total	572

Engineer officers who transferred to other branches since May 25, 1939

Name and rank	Transferred to—	Date
Capt. Samuel R. Browning	Field Artillery	Oct. 1, 1939.
Capt. John F. McCartney	Judge Advocate General's Department.	Dec. 3, 1940.
Capt. Stanley T. Wray	Air Corps	Feb. 1, 1941.
2d Lt. Jack A. Gibbs	do.	May 25, 1939.
2d Lt. Robert A. Breitweiser	do.	Aug. 25, 1939.
2d Lt. William B. Kieffer	do.	Do.
2d Lt. Paul T. Preuss	do.	Do.
2d Lt. Robert M. Batterson, Jr.	do.	Nov. 28, 1939.
2d Lt. Harry N. Brandon	do.	June 22, 1940.
2d Lt. Roscoe C. Crawford, Jr.	do.	Do.
2d Lt. Walter W. Farmer	do.	Do.
2d Lt. Joseph G. Perry	do.	Do.
2d Lt. John S. Samuel	do.	Do.
2d Lt. Delmer J. Rogers	do.	Aug. 7, 1940.
2d Lt. Harry A. French	do.	Mar. 21, 1941.
2d Lt. Robert E. Applegate	do.	Do.

Engineer officers who have been detailed to other branches since May 25, 1939

Name and rank	Detailed with—	Date
Maj. Gen. Virgil L. Peterson	Inspector General's Department	Mar. 3, 1940
Brig. Gen. Brehon B. Somervell	Quartermaster Corps	Dec. 11, 1940
Col. Leslie R. Groves	do.	July 24, 1940
Col. Wilhelm D. Styer	do.	Jan. 18, 1941
Col. Edmond H. Leavey	do.	Do.
Lt. Col. Samuel N. Karriek	Inspector General's Department	Sept. 25, 1940
Maj. Clinton F. Robinson	Quartermaster Corps	Jan. 18, 1941
Maj. Edmund K. Daley	do.	Jan. 19, 1941
Maj. Hugh J. Casey	do.	Jan. 20, 1941
Maj. Garrison H. Davidson	do.	Jan. 22, 1941
Capt. Charles J. Jeffus	Ordnance	Aug. 29, 1939

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